SONY®

HD DIGITAL VIDEOCASSETTE RECORDER

HDW-250

HDCAM

ISR Interactive Status Reporting

MAINTENANCE MANUAL Part 2
Volume 1 1st Edition
Serial No. 10001 and Higher

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

設置や保守，点検，修理などを行う前に，別冊のメンテナンスマニュアルPart 1の「安全のために」と別冊のオペレーションマニュアルの「安全のために」を必ずお読みください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

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Manual Structure

Purpose of this manual

This manual is the maintenance manual of the HD Digital Videocassette Recorder HDW-250.
This manual is intended for use by trained system and service engineers, and provides the information that premises the service based on parts replacement (parts replacement, electrical alignment, etc.).

Related manuals

In addition to the Maintenance Manual Part 2 Volume 1 and Volume 2, the following manuals are provided.

- **Operation Manual (supplied with HDW-250)**
  This manual describes how to operate the HDW-250.

- **Maintenance Manual Part 1 (supplied with HDW-250)**
  This manual describes the maintenance information and the information on primary services.

Contents

The following is a summary of all the sections for understanding the contents of this manual.

Maintenance Manual Part 2 Volume 1

Section 1 Service Overview
Explains the adjustment tools and replacement of fuses.

Section 2 Mechanical Parts Replacement
Explains how to replace the mechanical parts and the adjustment procedure after parts replacement.

Section 3 Tape Path Alignment
Explains how to adjust the mechanical parts such as tape running system.

Section 4 Circuit Boards Replacement
Explains how to replace the boards.

Section 5 Electrical Alignment
Explains the electrical alignment for the maintenance of this unit.

Maintenance Manual Part 2 Volume 2

Section 1 Semiconductor Pin Assignments
Section 2 Spare Parts
Section 3 Block Diagrams
Section 4 Board Layouts
Section 5 Schematic Diagrams

Section 1
Service Overview

1-1. Fixtures

Fig. No.	Part No.	Description	Application
1	J-6001-820-A	Drum Eccentricity Adjustment (3)	Adjusting the upper drum eccentricity
2	J-6001-830-A	Drum Eccentricity Adjustment (2)	
3	J-6031-840-B	Multi Connector Cable CIBNC	Adjusting the video system
4	J-6080-840-A	Mirror (Small Oval Type)	Adjusting the tape path
5	J-6086-570-A	Reference Flat Plate	Adjusting audio TC head zenith
6	J-6087-000-A	Drum Eccentricity Adjustment (5)	Adjusting the upper drum eccentricity
7	J-6152-450-A	Wire Clearance Check Gauge	Checking the clearance
8	J-6321-500-A	Tape Guide Adjustment Driver	Adjusting the tape guide height
9	J-6322-420-A	Driver (Tool) TG Adjustment (45)	Adjusting the tape path
	J-6322-420-3	Tool, 0.89 Bit (for repairing)	
10	J-6323-530-A	Stop Washer Fastening Tool	Installing the stop washer
11	J-6323-890-A	Torque Cassette (FWD back ten)	Adjusting the FWD back tension
12	J-6324-030-A	Drum Eccentricity Adjustment (7)	Adjusting the upper drum eccentricity
13	J-6325-110-A	Torque Screwdriver Bit (For M1.4)	Tightening screws
	J-6325-380-A	Torque Screwdriver Bit (For M2)	
14	J-6325-400-A	Torque Screwdriver Bit (3 kg/cm)	
15	J-6325-530-A	Drum Eccentricity Adjustment (6)	Adjusting the upper drum eccentricity
16	J-6326-120-A	Hexagon Bit (For Torque Driver) (S:1.5)	Tightening screws
17	J-6326-530-A	Cassette Reference Plate (L)	Adjusting the reel table height
18	J-6326-940-A	S-side Gauge	Adjusting S4 guide height
19	J-6329-350-A	Reel Table Height Gauge (MW-935)	Adjusting the reel table height
20	J-6510-400-A	Extension Harness (VIDEO)	Repairing boards
21	J-6421-440-A	Extension Harness (AUDIO)	
22	J-7031-030-A	S-Tension Arm Positioning Tool	Adjusting the positioning of parts
23	J-7031-040-A	Weight for S-Tension Adj. (W76.7)	Adjusting the amount of part movement
24	J-7031-050-A	Weight for S-Tension Adj. (W44)	
25	J-7031-260-A	Master Block (T2)	Checking the tape guide slant
26	J-7031-270-A	Master Block (S2)	
27	J-7031-280-A	S-TEN Adjusting Table, PG-128	Adjusting the tension regulator
28	J-7031-450-B	END Sensor Positioning Tool	Adjusting the positioning of parts
29	J-7031-460-A	Bit for Torque Driver (S:1.27)	Fastening screws
30	A-8319-485-A	Memory Card Box, CDS-20 Assembly	For updating software
31	A-8322-838-A	Conversion connector for software update	For updating software
32	1-772-003-11	Memory Card (2 MB) MB98A81183	For updating software
33	3-184-527-01	Cleaning Cloth (15 × 15 cm)	Cleaning
34	7-651-000-10	Silicone Grease SGL-601 (50 g)	Lubricating
	7-651-000-11	Silicone Grease SGL-801 (50 g)	
35	7-661-018-18	Diamond Oil NT-68 (Mitsubishi diamond oil hydro-fluid) (50 ml)	

Fig. No.	Part No.	Description	Application
36	7-700-736-05	L Shaped Hex. Wrench (d = 1.5 mm)	Removing screws
	7-700-736-06	L Shaped Hex. Wrench (d = 0.9 mm)	
37	8-960-076-01	Alignment Tape HR5-1A	Adjusting the video/audio system
	8-960-076-11	Alignment Tape HR2-1A	Adjusting the video tracking
38	9-911-053-00	Thickness Gauge	Checking the clearance
39	9-919-573-01	Cleaning Liquid	Cleaning
	Commercially available	Head Demagnetizer	Demagnetizing head
		Blank Tape BCT-40HD	Adjusting the tape running and adjusting the RF system
		Blank Tape BCT-124HDL	
		Cleaning Tape (BCT-HD12CL)	Cleaning

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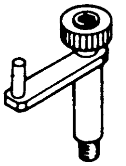

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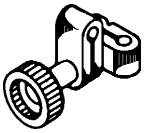

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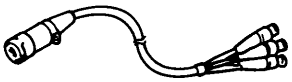

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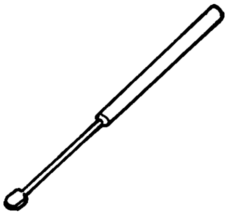

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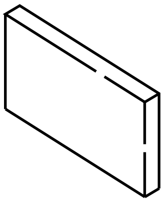

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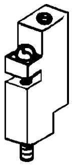

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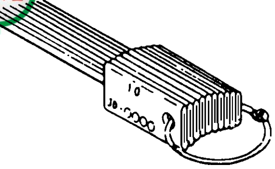

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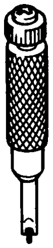

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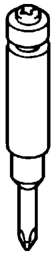

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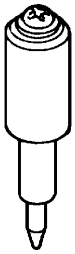

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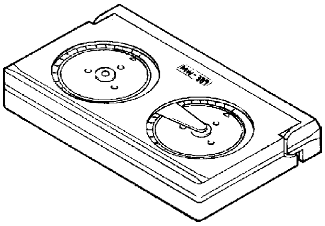

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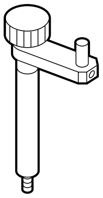

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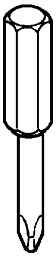

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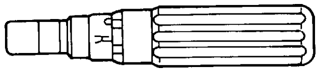

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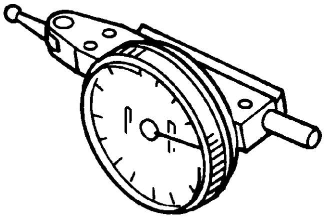

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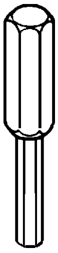

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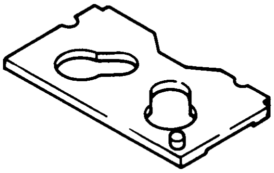

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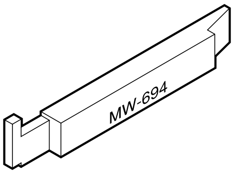

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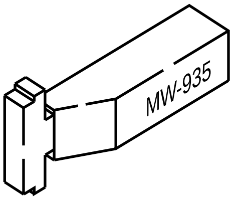

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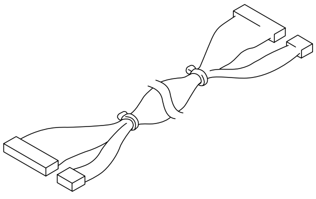

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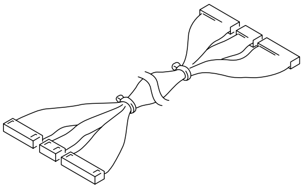

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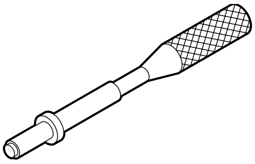

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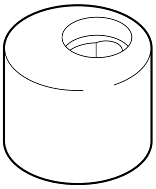

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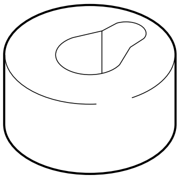

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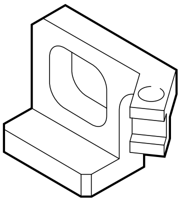

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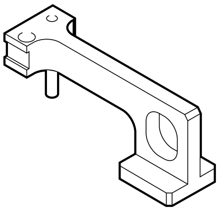

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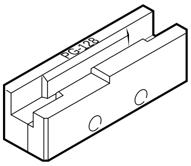

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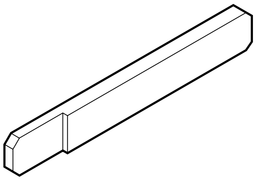

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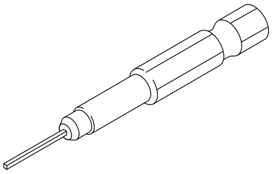

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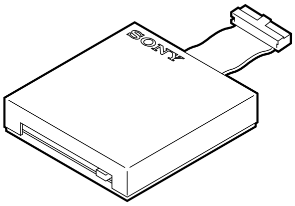
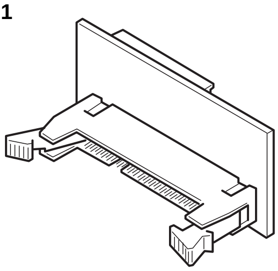


31



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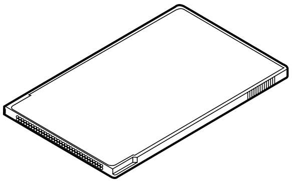

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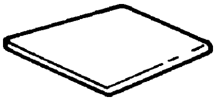
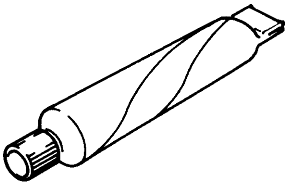


34



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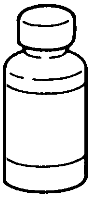

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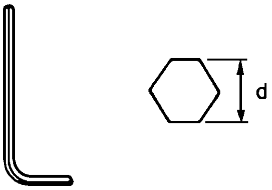

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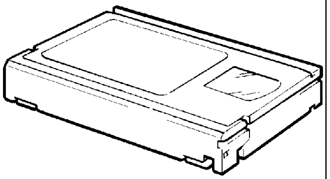

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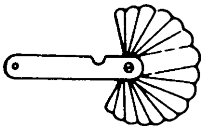
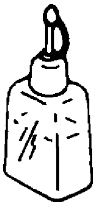


39



1-2. Fuse Replacement

WARNING

The fuse is critical parts to safe operation.
Replace this component with Sony parts whose part numbers appear in this manual published by Sony.
If not, this may cause a fire or electric shock. Be sure to use the specified component in this manual.

The HDW-250 has some fuses.
A fuse will blow when abnormality occurs and an overcurrent flows in this equipment.
Be sure to replace an old fuse with the specified fuse as shown below after removing the foreign substances that may cause the shorts.

Board name	Ref. No.	Part name	Part No.
FU-76 board	F1 (∗D1)	Glass tubular fuse 5 A, 125 V	⚠1-532-747-11
	F2 (∗D1)	Glass tubular fuse 10 A, 125 V	⚠1-576-048-11
	F3 (∗B1)	Glass tubular fuse 5 A, 125 V	⚠1-532-747-11

Note : The characters in parenthesis ( ) indicate the address on board.

Section 2
Mechanical Parts Replacement

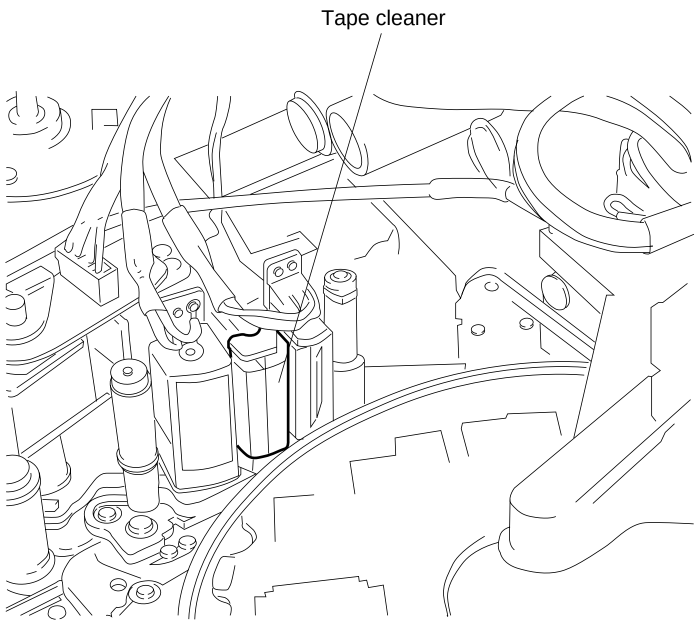
2-1. General Information on Mechanical Part Replacement

2-1-1. Precautions

1. Tape cleaner

WARNING

Never touch the tape cleaner located at the entrance head assembly with bare hands.
It is a danger of cutting your finger because the tape cleaner has a sharp edge.
Be careful not to cut your hands when the peripheral parts are replaced or adjusted.



2. Tools

- Before using a tool be sure to clean its surface.
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01
- Handle the tools carefully to avoid damage them.
  If the tool is damaged, the adjustment cannot be correctly carried out.

3. Arranging and tying the harness

The harnesses are arranged neatly and tied at each position to prevent contacting with the mechanical parts because this VTR is designed as a compact machine.
After cutting the harness clamps during the parts replacement, be sure to arrange and tie the harnesses using new clamps to prevent contacting with the mechanical parts.

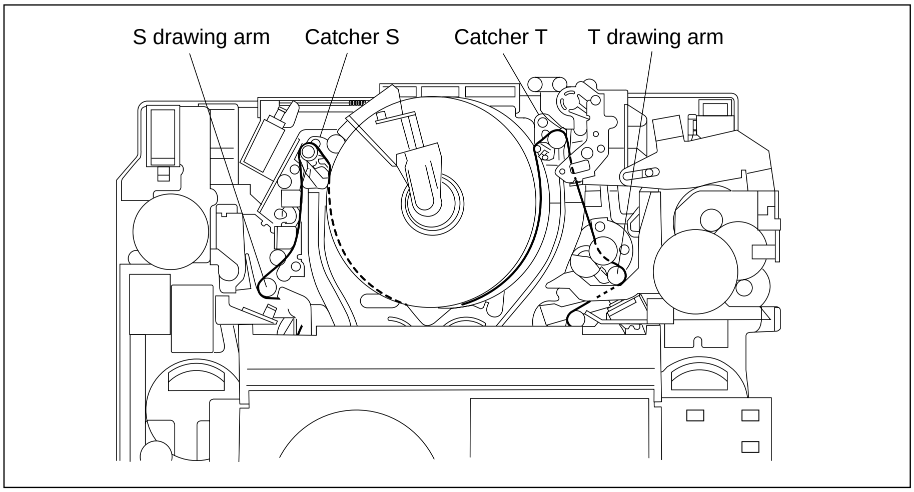
2-1-2. Threading End/ Unthreading End Mode

1. Threading end mode

Threading end mode means that the S and T sliders move from around the reel tables to both sides of the drum, and stop at the cut portions like a V of the catchers S and T. The S drawing arm and T drawing arm also move to the portion shown in the following figure, at the same time.

(1) To enter the threading end mode using a tape

- Insert a cassette tape into the cassette compartment.


S drawing arm
Catcher S
Catcher T
T drawing arm

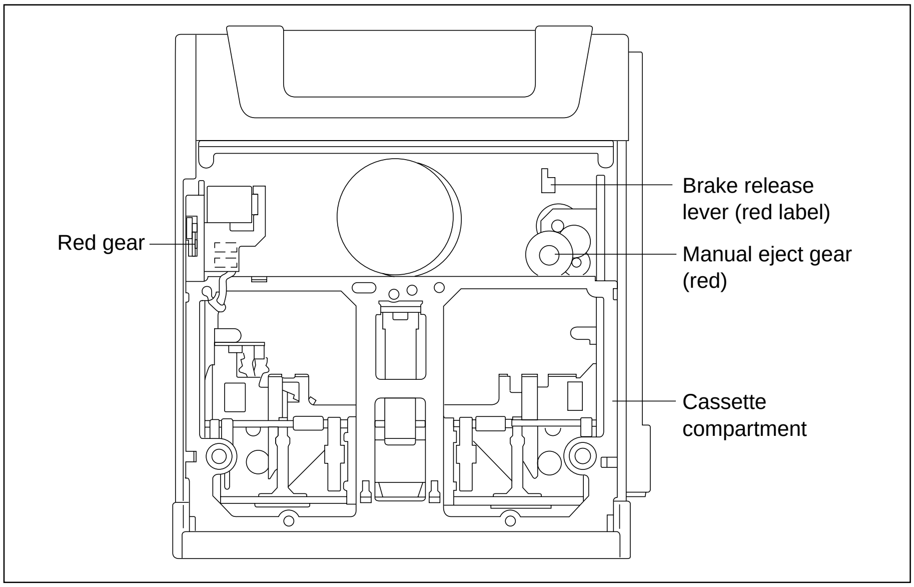
(2) To enter the threading end mode manually

- Turn off the power.
- Remove the top panel.

Note

When no cassette is in the cassette compartment, do not turn the red gear on the left of the cassette compartment.

- During pushing the T reel brake release lever, turn the manual eject gear clockwise as far as it will go while pushing it downward.


Red gear
Brake release lever (red label)
Manual eject gear (red)
Cassette compartment

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2. Unthreading end mode

Unthreading end mode means that the S and T sliders move from the catchers S and T to the directions of the reel tables, and then stop.

This mode is the same as the eject completion mode.

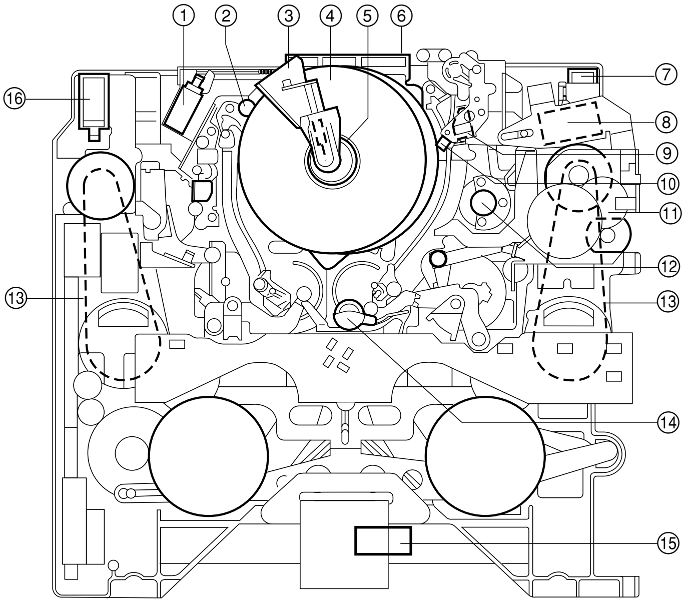
(1) To enter the unthreading end mode
- Press the EJECT button.

(2) To enter the unthreading end mode manually
- Turn the power off.
- While pulling the brake release lever with the red label toward you, turn the manual eject gear counterclockwise as far as it will go while pushing it downward.
- Turn the red gear on the left of the cassette compartment toward the battery case to put the cassette compartment into the up state.

Note

When no cassette is in the cassette compartment, do not turn the red gear.

2-1-3. Parts Location of Periodical Replacement Parts



Mark	Item	Title
①	Video head cleaner solenoid	2-14. Video Head Cleaner Solenoid Replacement
②	AHC roller assembly	2-8. AHC Roller Assembly Replacement
③	Brush	2-2. Brush Replacement
④	Upper drum assembly	2-4. Upper Drum Assembly Replacement
⑤	Slip ring	2-3. Slip Ring Assembly Replacement
⑥	Drum assembly	2-5. Drum Assembly Replacement
⑦	T reel brake solenoid	2-13. T Reel Brake Solenoid Replacement
⑧	Pinch solenoid	2-10. Pinch Solenoid Assembly Replacement
⑨	CUE/TC head	2-17. CUE/TC Head Replacement
⑩	CUE brush	2-9. CUE Brush Replacement
⑪	Gear block	2-18. Threading Motor Replacement
⑫	Capstan motor	2-15. Capstan Motor Replacement
⑬	Driving belt	2-6. Driving Belt Replacement
⑭	Pinch roller arm assembly	2-7. Pinch Roller Arm Assembly Replacement
⑮	Battery	2-19. Battery Replacement
⑯	S reel brake solenoid	2-12. S Reel Brake Solenoid Replacement

2-1-4. Other Precautions

(1) Screwdrivers and screw tightening torque

This unit uses the screws of small size.
Be sure to use the relevant tools when loosening or tightening these screws.
Tighten these screws with the specified tightening torque using the torque screwdriver.

Torque screwdriver bit (for M1.4) : J-6325-110-A
Torque screwdriver bit (for M2) : J-6325-380-A
Hexagon bit (across 1.5 mm) : J-6326-120-A
Hexagon bit (across 1.27 mm) : J-7031-460-A
Torque screwdriver (for 3 kg) : J-6325-400-A
Tightening torque
  For M1.4 (+) screw : 9×10^{-2} N•m (0.9 kgf•cm)
  For M2 (+) screw : 19×10^{-2} N•m (1.9 kgf•cm)
  For hexagon screw : 9×10^{-2} N•m (0.9 kgf•cm)

Note

The small screws can be dropped in the unit during the parts replacement.
To prevent this, it is recommended to magnetize the screwdriver bit. Keep the magnetized bit away from the CUE/TC and CTL heads.

(2) Stop washers

Never reuse the stop washers that has been removed once.
When attaching the part, be sure to use a new stop washer.

Stop washer : 3-321-393-01
Stop washer : 3-669-465-01
Stop washer : 3-726-829-01

Stop washer removal

(a) Remove the stop washer using tweezers or a small flat screwdriver.

Notes

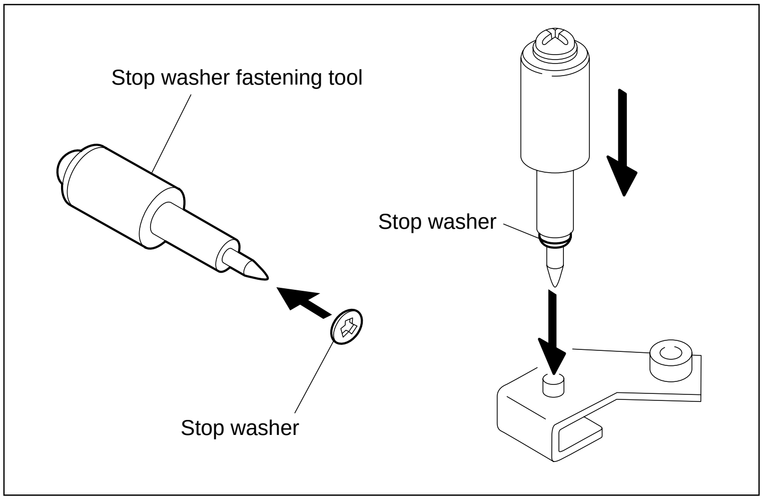
- Do not drop the stop washer in the unit.
- Keep the tool from contact with the other parts (especially the drum).

Stop washer installation

When attaching the stop washer, it is recommended to use the following tool :

Stop washer fastening tool : J-6323-530-A

(a) Put a stop washer to the tip of a stop washer fastening tool.
(b) Put the tip of the tool on the top of the shaft in an upright position.
(c) Press down the handgrip of the tool and attach the stop washer to the shaft.
(d) Ensure that the stop washer is put into the groove of the shaft.

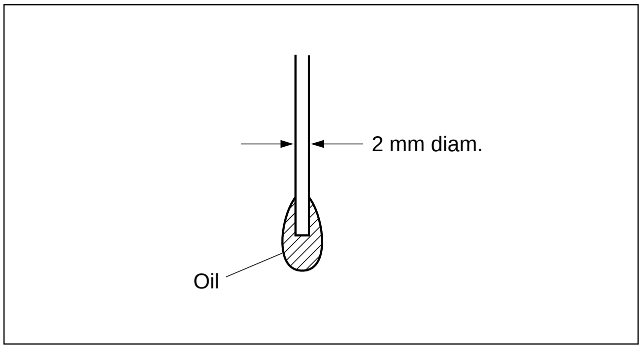


(3) Oil and grease

Be sure to use the specified oil and grease.
If the other oil or grease is used, a serious malfunction can occurs due to the differences in viscosity and ingredients.
Do not use the dust-laced oil or grease to prevent a serious malfunction. Be sure to use the following oil and grease :

Oil :	7-661-018-18
Grease (SGL-601) :	7-651-000-10
Grease (SGL-801) :	7-651-000-11

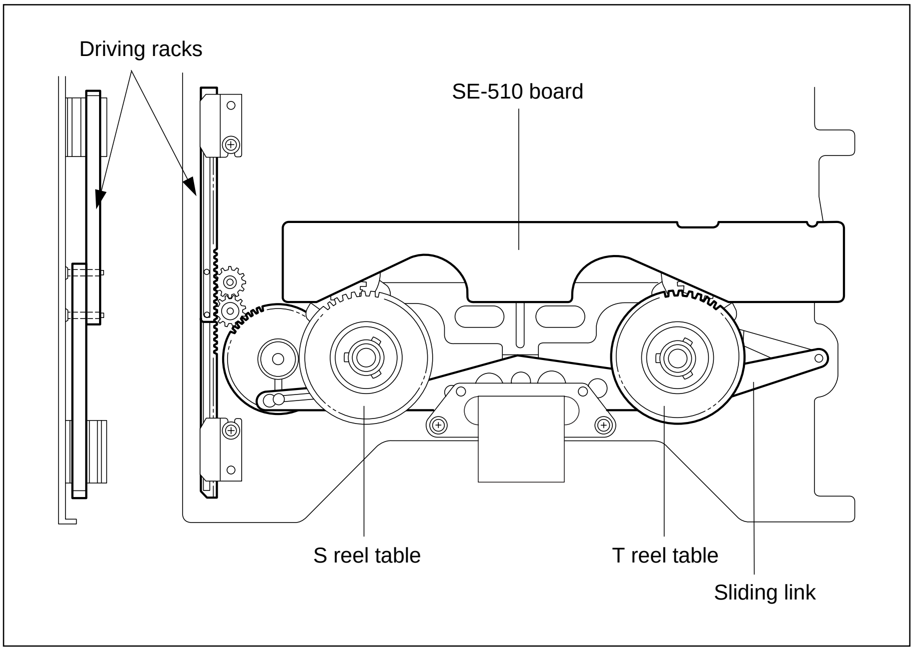
- A drop of oil defines as follows; About the amount will adhere to the tip of a stick (2 mm in diameter) as shown in the figure.
- Smear grease onto the surface like a thin film.
- Apart from the relevant areas never use the oil and grease.
  If grease is smeared apart from the relevant areas, be sure to wipe using a gauze or soft cloth.



2-1-5. L Cassette Position, S Cassette Position and Intermediate Position

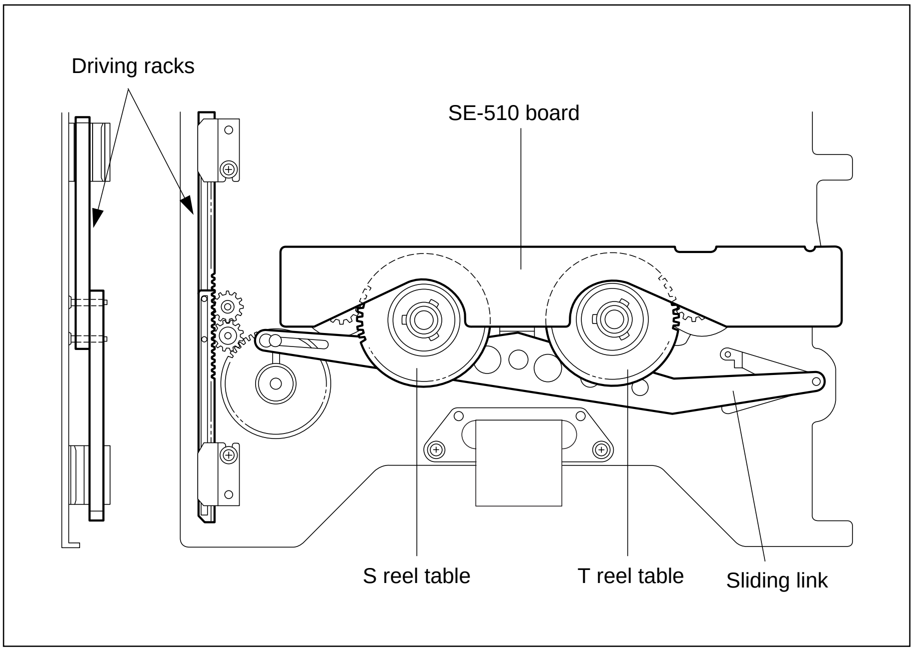
L cassette position

It means that the reel tables are in the position for L cassette tape.


Driving racks
SE-510 board
S reel table
T reel table
Sliding link

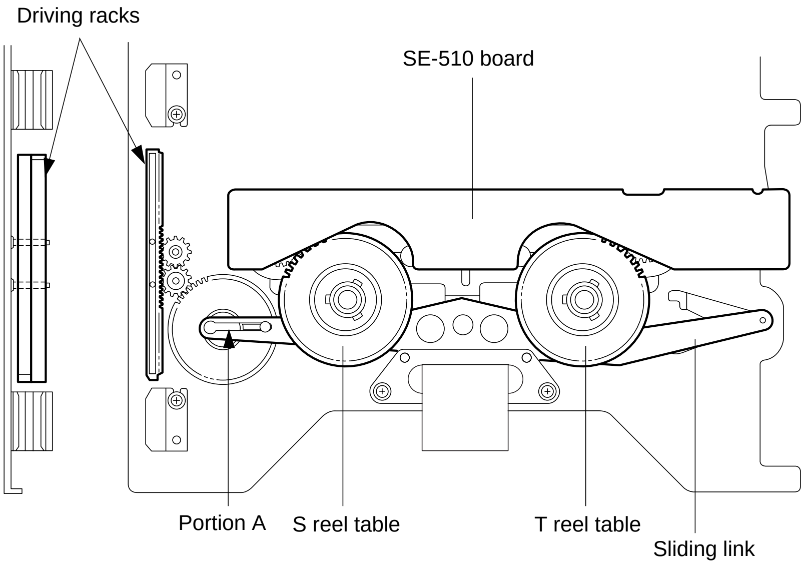
S cassette position

It means that the reel tables are in the position for S cassette tape.


Driving racks
SE-510 board
S reel table
T reel table
Sliding link

Intermediate position

It means that positions of the two driving racks are aligned, and portion A of the sliding link and the unit become parallel. (See the following figure.)

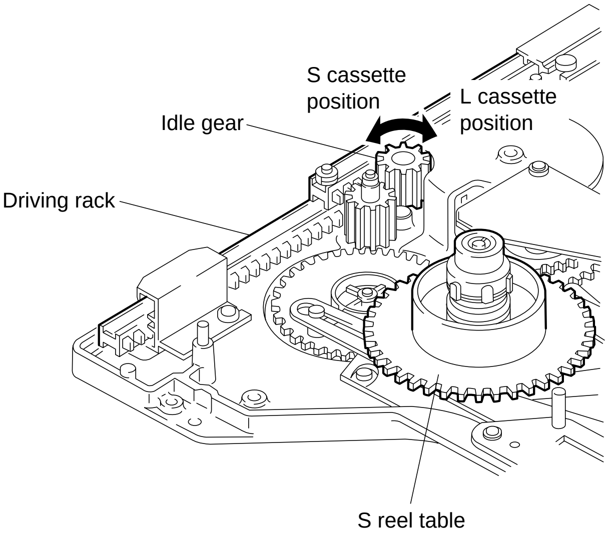

Driving racks
SE-510 board
Portion A
S reel table
T reel table
Sliding link

To put the unit into the L cassette position, S cassette position and intermediate position

Turn an idle gear with your fingers until the reel table assemblies shift to the desired position and the driving rack locks.

Note

If a cassette tape is inserted, the reel tables can not be shifted.


S cassette position
L cassette position
Idle gear
Driving rack
S reel table

2-2. Brush Replacement

Overview

Brush cover removal
Brush assembly removal
Brush assembly installation
Brush cover installation

Precautions

- If the brush worn out, replace the entire brush assembly.
- After the brush assembly attachment following steps below, the relative height and the contact pressure against the slip ring will be automatically adjusted. Therefore, the adjustment after replacement is not required.
- Never clean on the surface of the brush using a cleaning cloth moistened with cleaning fluid. Also, never touch the slip ring with bare hands.

Preparation

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Note

The brush assembly can be replaced with the cassette compartment attaches to the unit.

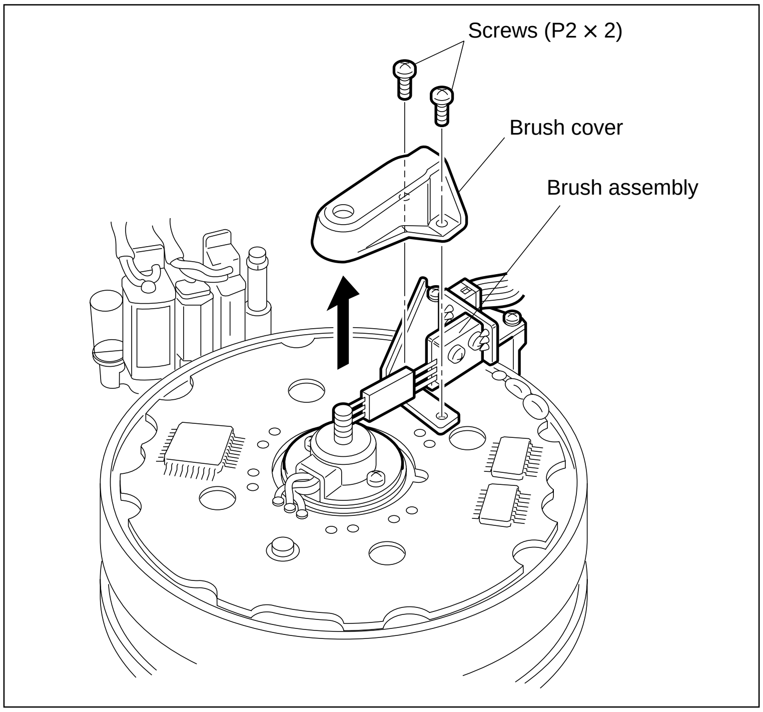
Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A

Removal

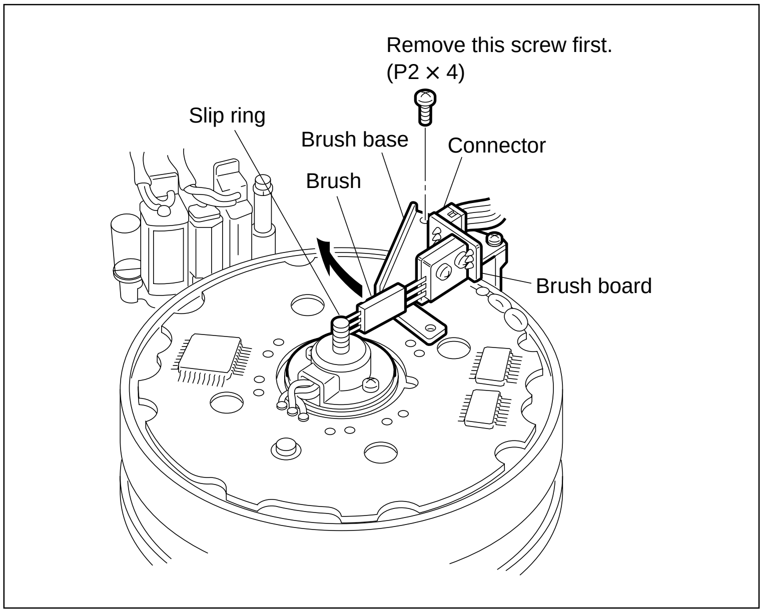
1. Brush cover removal

Remove the two precision screws and the brush cover.



2. Brush assembly removal

(1) Remove one of the two screws, shown in the figure, which secures the brush base.
(2) Loosen the other screw, and then move the brush base in the direction of the arrow.
In this way, the brush and slip ring will be disengaged.
(3) Remove the screw that is loosened in step (2) to remove the brush assembly.
(4) Disconnect the connector on the brush board.


Remove this screw first.
(P2 × 4)
Slip ring
Brush base
Connector
Brush
Brush board

Installation

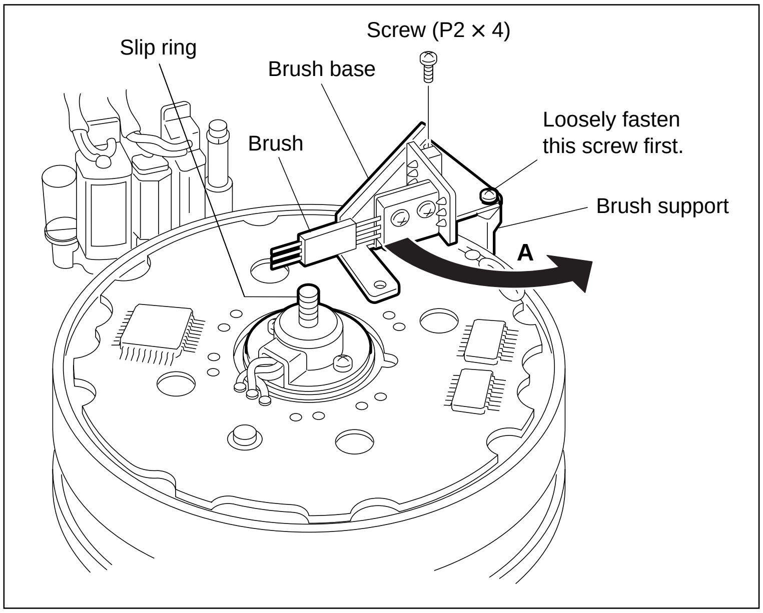
3. Brush assembly installation

(1) Connect the connector to the brush board.
(2) Loosely tighten the screw shown in the figure to attach the brush assembly onto the brush support temporarily.

Note

Never touch the brush and the slip ring.

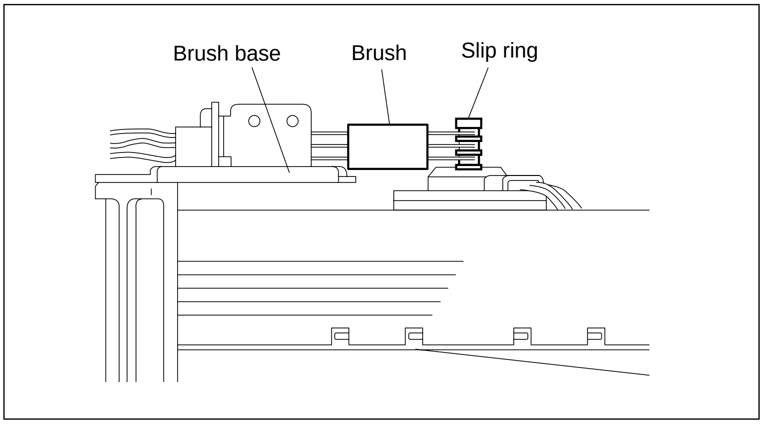
(3) Move the brush base in the direction of the arrow **A** while pressing down the brush base above the brush support, and then loosely tighten the other screw.
(4) While pushing the brush base in the direction of the arrow **A**, retighten the screws that were loosely attached in steps (2) and (3).


Screw (P2 × 4)
Slip ring
Brush base
Loosely fasten
this screw first.
Brush
Brush support
A

(5) Ensure that the brush properly contacts with the grooves of the slip ring.

Note

Once steps (2) to (4) are completed, the height of the brush and contact pressure against the slip ring will be automatically adjusted.

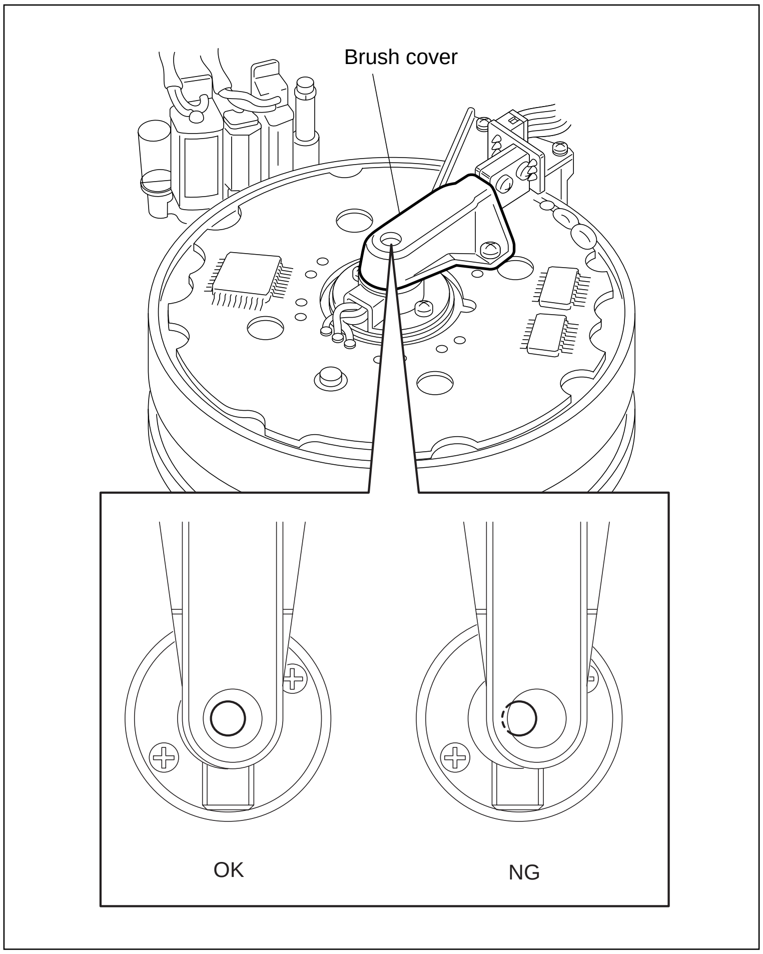


4. Brush cover installation

Align the hole of the brush cover with the shaft of the slip ring, and then secure the brush cover with the two screws.

Note

Do not load to the brush base.



2-3. Slip Ring Assembly Replacement

Overview

Brush cover removal
Brush assembly removal
Slip ring assembly removal
Slip ring assembly installation
Brush assembly installation
Brush cover installation

Precautions

- If the slip ring worn out, replace the entire slip ring assembly.
- After the slip ring assembly attachment following steps below, the adjustment is not required.
- Never clean on the surface of the slip ring assembly using a cleaning cloth moistened with cleaning fluid. Also, never touch the slip ring with bare hands.

Preparation

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Note

The brush assembly can be replaced with the cassette compartment attaches to the unit.

Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A

Removal

1. Brush cover removal

Remove the brush cover. (Refer to Section “2-2. Brush Replacement”.)

2. Brush assembly removal

Remove the brush assembly. (Refer to Section “2-2. Brush Replacement”.)

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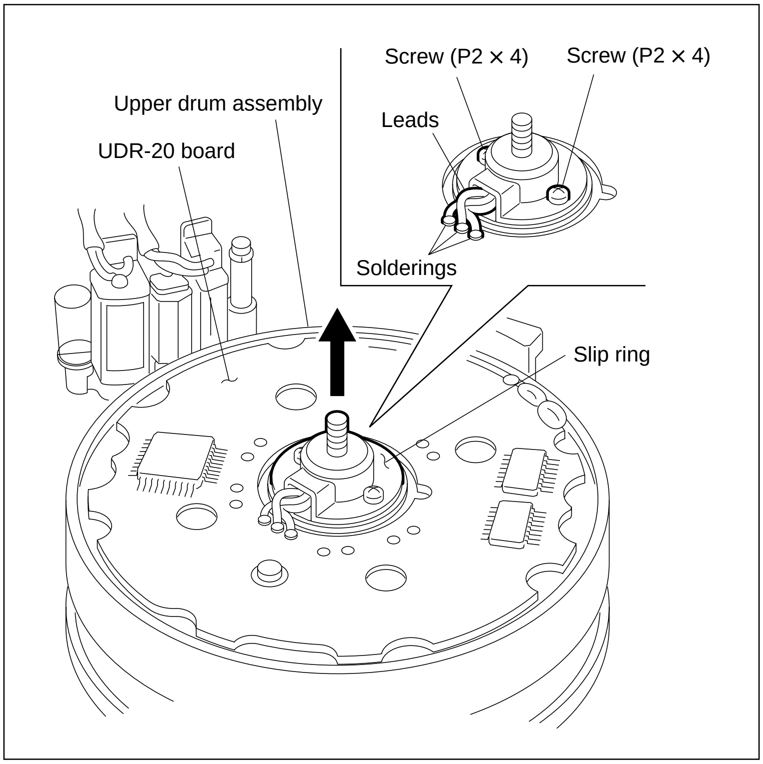
3. Slip ring assembly removal

(1) Unsolder the three leads of the slip ring assembly from the UDR-20 board on the upper drum assembly.

(2) Remove the two screws and the slip ring assembly.


Screw (P2 × 4)
Screw (P2 × 4)
Upper drum assembly
Leads
UDR-20 board
Solderings
Slip ring

Installation

4. Slip ring assembly installation

(1) Attach the slip ring assembly to the drum shaft so that the three leads of the slip ring assembly are positioned to the printed silk (RED, BLUE, and BLK) on the UDR-20 board of the upper drum assembly.

Note

Hold the black portion of the slip ring assembly during installation. Never touch the slip ring (metallic portion).

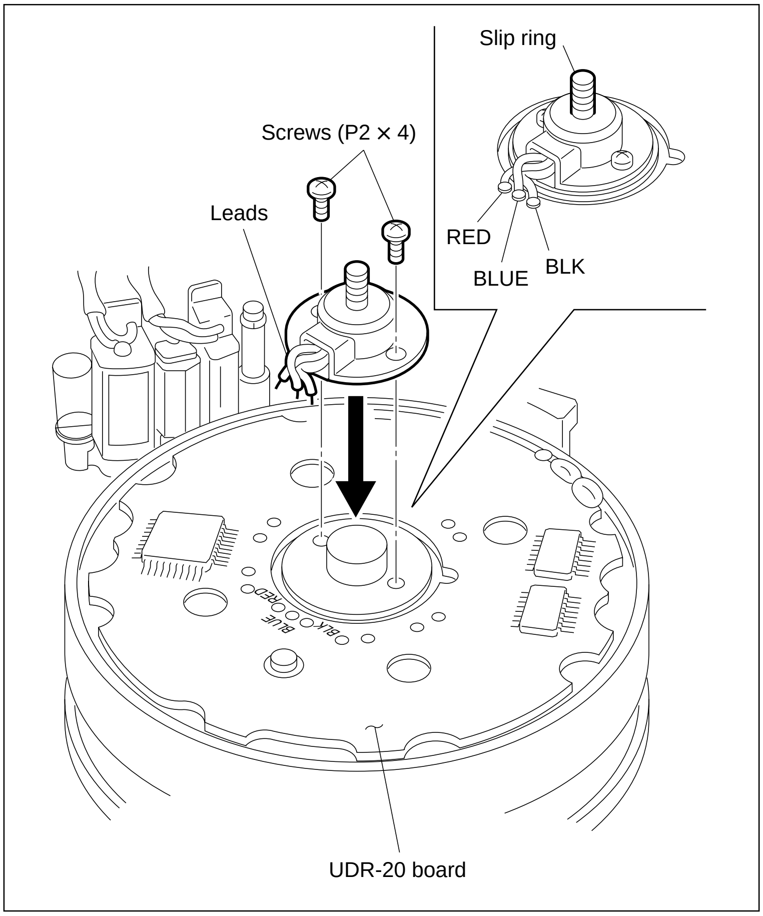
(2) Fasten the slip ring assembly using the two screws.

(3) Solder the three leads of the slip ring assembly to the UDR-20 board of the upper drum assembly.

Red lead : RED pattern
Blue lead : BLUE pattern
Black lead : BLK pattern

Note

Be careful that the flux or others must not adhere the slip ring.


Slip ring
Screws (P2 × 4)
Leads
RED
BLUE
BLK
RED
BLUE
BLK
UDR-20 board

5. Brush assembly installation

Attach the brush assembly. (Refer to Section “2-2. Brush Replacement”.)

6. Brush cover installation

Attach the brush cover. (Refer to Section “2-2. Brush Replacement”.)

2-4. Upper Drum Assembly Replacement

Overview

Replacement

Brush cover removal
Brush assembly removal
Unsoldering the leads of slip ring assembly
Upper drum assembly removal
Cleaning of contact surfaces
Upper drum assembly installation
Upper drum eccentricity gauge installation
Upper drum eccentricity adjustment
Upper drum eccentricity gauge removal
Soldering the leads of slip ring assembly
Brush assembly installation
Brush cover installation
Cleaning of video heads and tape running surfaces

Adjustment after replacement

Tape path adjustment (Refer to Section 3-1-1.)
RF system adjustment (Refer to Section 5-5.)

Precaution

If the rotary heads worn out or broke, replace the entire upper drum assembly. The head chip cannot be replaced only.

Basic Knowledge

Aside from the periodic replacement, the upper drum assembly needs to be replaced in the following case :

- If the proper RF waveform does not appear after the tracking adjustment.

Preparation

1. Set the unit to the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section 1-6.)

Tools

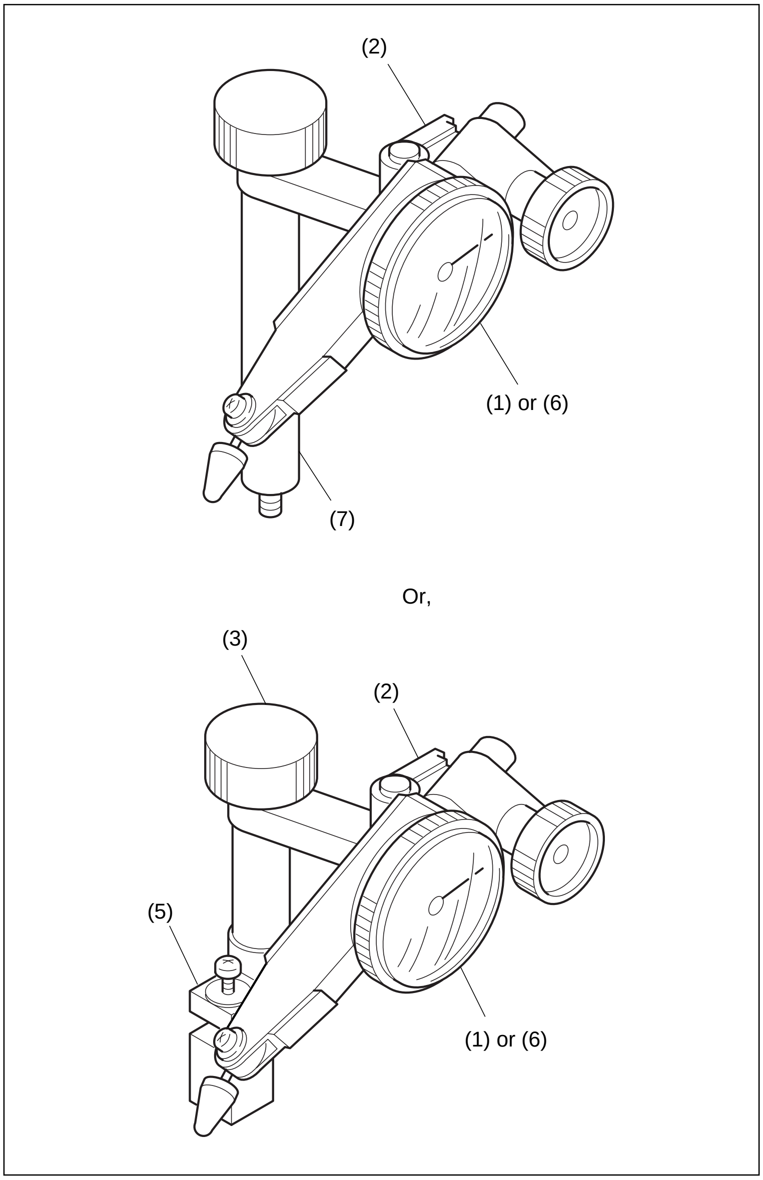
• Torque screwdriver bit (for M2) :	J-6325-380-A
• Hexagon bit (across 1.5 mm) :	J-6326-120-A
• Torque screwdriver (for 3 kg) :	J-6325-400-A
• Drum eccentricity gauge (1) :	J-6001-840-A
or (6) :	J-6325-530-A
• Drum eccentricity gauge (2) :	J-6001-830-A
• Drum eccentricity gauge (3) :	J-6001-820-A
• Drum eccentricity gauge (5) :	J-6087-000-A
• Drum eccentricity gauge (7) :	J-6324-030-A
• L wrench (across 1.5 mm) :	7-700-736-05
• Cleaning cloth :	3-184-527-01
• Cleaning fluid :	9-919-573-01

Notes

(1) When attaching the upper drum assembly to the flange, tighten the screws to the following tightening torque in the two steps below.
- First, torque the screws tentatively to 9.8×10^{-2} N•m (1 kgf•cm).
- Then, torque the screws finally to 24.5×10^{-2} N•m (2.5 kgf•cm).
  To fasten the screw, attach the hexagon bit to the tip of the torque screwdriver and set the torque to 9.8×10^{-2} N•m (1 kgf•cm).

(2) Assemble the upper drum eccentricity gauges as shown in the figure before use.

(3) The following tools can be used instead of the upper drum eccentricity gauge (7).
- Drum eccentricity gauge (3) : J-6001-820-A
- Drum eccentricity gauge (5) : J-6087-000-A



Removal

1. Brush cover removal

Remove the brush cover. (Refer to Section “2-2. Brush Replacement”.)

2. Brush assembly removal

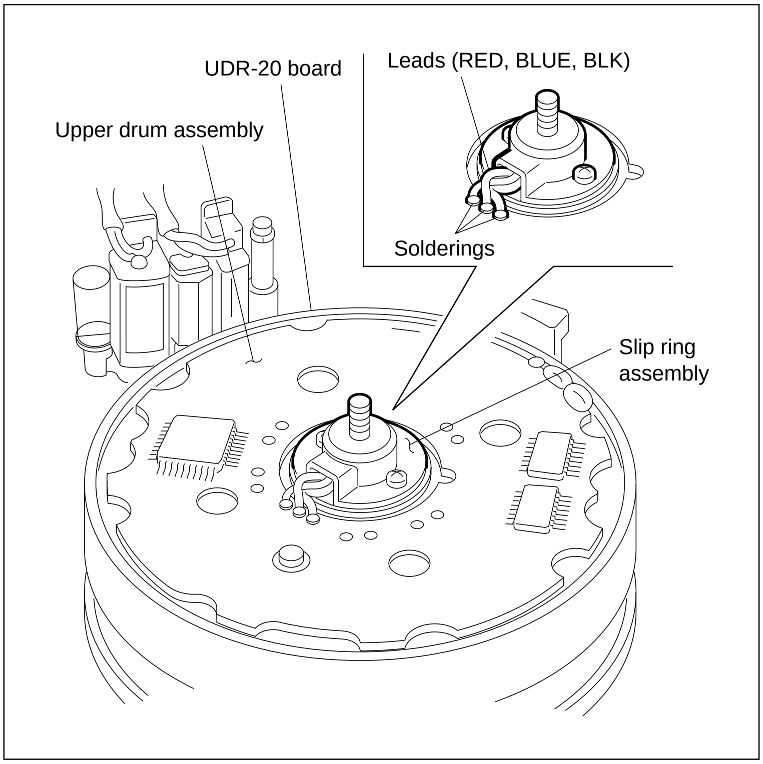
Remove the brush assembly. (Refer to Section “2-2. Brush Replacement”.)

3. Unsoldering the leads of slip ring assembly

Unsolder the three leads of the slip ring assembly from the UDR-20 board on the upper drum assembly.

Note

Be careful not to touch the slip ring directly. In addition, the flux of the solder must not adhere the slip ring.


UDR-20 board
Leads (RED, BLUE, BLK)
Upper drum assembly
Solderings
Slip ring assembly

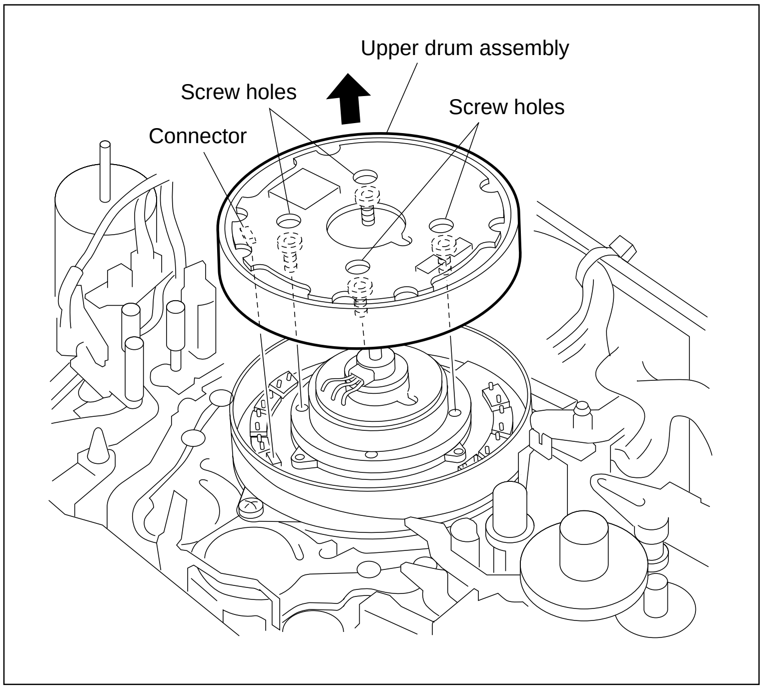
4. Upper drum assembly removal

(1) Put an L wrench into the holes of the upper drum assembly and remove the four screws.

(2) Lift the upper drum assembly just above to remove it.

Notes

- Be careful not to damage the upper edge of the lower drum after the upper drum assembly is removed.
- Remove the screws from the removed upper drum assembly using a pair of tweezers.
- There is a connector connecting the upper and lower drums.


Upper drum assembly
Screw holes
Screw holes
Connector

Installation

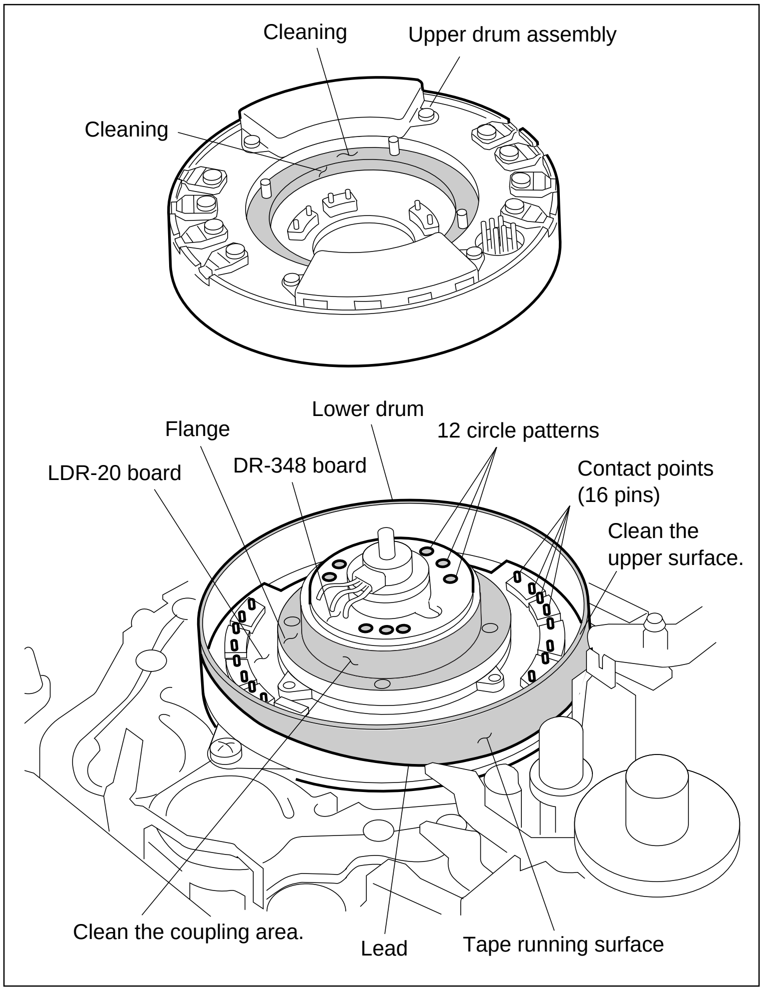
5. Cleaning of contact surfaces

(1) Clean the following portions using a cleaning cloth moistened with cleaning fluid.
- Flange of the lower drum (Shaded portion in the figure)
- Tape running surface and lead of the lower drum
- Upper surface of the lower drum
- Coupling area of the upper and lower drums
- Contact surface of a new upper drum assembly (Shaded portion in the figure)

(2) Wipe the eight contact points (16 pins) mounted on the LDR-20 board of the flange and 12 circle patterns on the DR-348 board using a dry cleaning cloth.

Note

Do not use a cleaning fluid.


Cleaning
Upper drum assembly
Cleaning
Lower drum
Flange
12 circle patterns
LDR-20 board
DR-348 board
Contact points (16 pins)
Clean the upper surface.
Clean the coupling area.
Lead
Tape running surface

6. Upper drum assembly installation

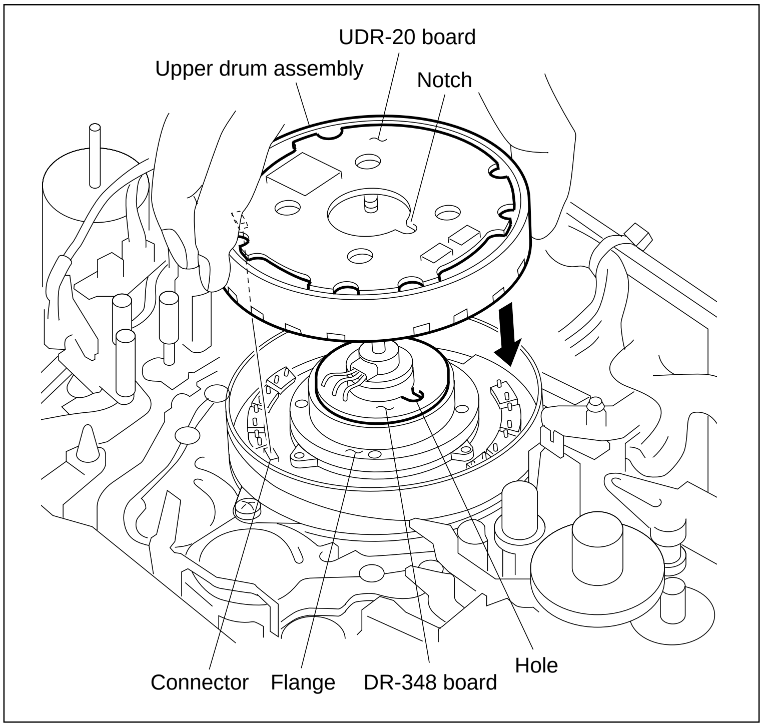
(1) Grasp a new upper drum assembly by no-video heads portions. Align the notch of the center hole on the UDR-20 board with the hole on the DR-348 board.

(2) Slowly move the upper drum assembly toward the flange without tilting it, and then connect a 6-pin connector plug to the connector on the LDR-20 board of the flange.

Note

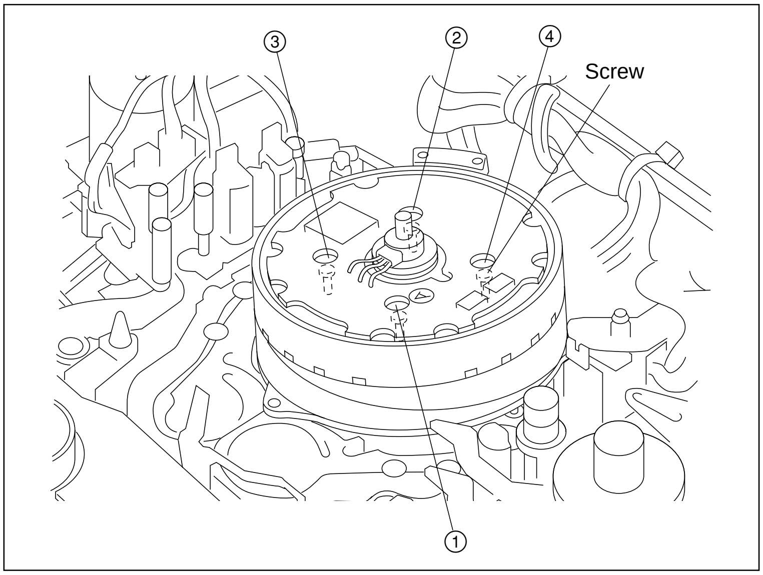
Keep the video heads from contact with the brush support and peripheral parts when attaching the upper drum assembly.

(3) Press the upper drum assembly toward the flange until it is securely attached to the flange.


UDR-20 board
Upper drum assembly
Notch
Connector
Flange
DR-348 board
Hole

(4) Insert the four screws (removed in step “4. Upper drum assembly removal”) into the four holes on the board of the upper drum assembly using a pair of tweezers.

(5) Loosely fasten the four screws in the sequence shown in the figure using an L wrench.



7. Upper drum eccentricity gauge installation

(1) Clean the probe of the gauge with a cleaning cloth moistened with cleaning fluid.

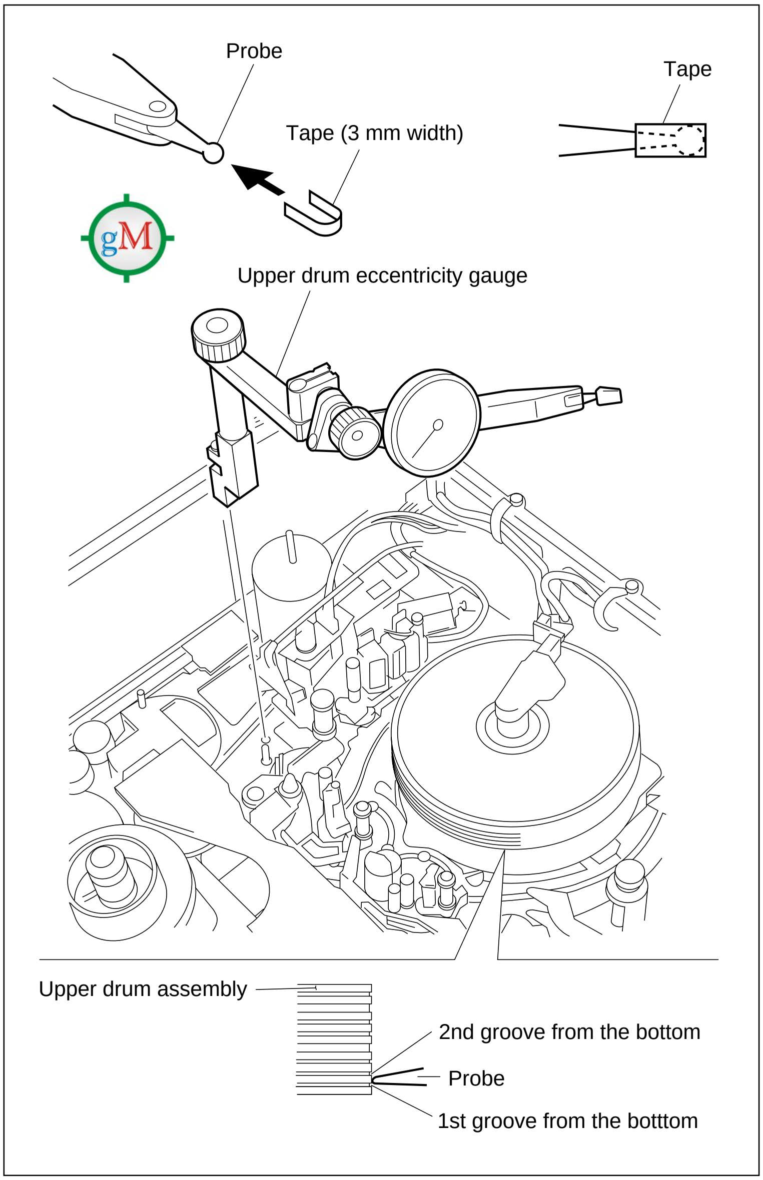
Notes

- If the prove is dirty, the upper drum assembly may be scratched during adjustment.
- If the prove is made of metal, it is recommended that the lubricated protective tape is put on the prove to prevent the upper drum assembly from being scratched.

(2) Attach the gauge to the position shown in the figure. Align the probe between the bottom two grooves out of eight grooves around the perimeter of the upper drum assembly.

Note

Keep the probe from contact with the video heads.


Probe
Tape
Tape (3 mm width)
Upper drum eccentricity gauge
Upper drum assembly
2nd groove from the bottom
Probe
1st groove from the botttom

8. Upper drum eccentricity adjustment

(1) Slowly turn the upper drum assembly counterclockwise for one turn and check that the indicated deflection of the gauge meets the following specification.

Specification : Within 3 µm

If the specification did not met, repeat the following steps (a) to (c) and adjust until the specification meets.

(a) Slowly turn the upper drum assembly counterclockwise, and then check the maximum and minimum values of the pointer deviations.

(b) Turn the upper drum assembly until the minimum deflection value indicates, and then stop it

(c) Press the upper drum assembly in the portion opposite to the probe in the direction of the arrow until the difference between the maximum and minimum values of the pointer deviations becomes half its original range of the values.

Note

When the pointer did not move even though pressing the upper drum assembly by finger, loosen the four screws that secure the upper drum assembly.
If the pointer overreacts when pressing, tighten the screws a little.

(2) Set the torque screwdriver to 9.8 × 10^{-2} N•m (1 kgf•cm) and put it in the four holes on the board of the upper drum assembly. And then tighten the four screws slowly in the sequence shown in the figure.

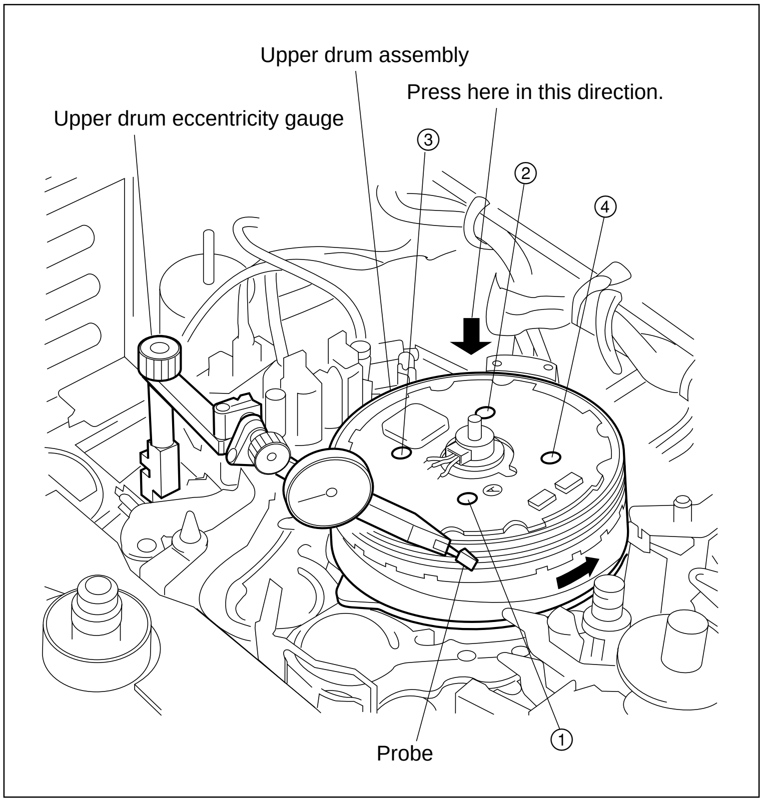
Note

When tightening the screw just after eccentricity adjustment, be sure to tighten them to 9.8 × 10^{-2} N•m (1 kgf•cm).

(3) Set the torque screwdriver to 24.5 × 10^{-2} N•m (2.5 kgf•cm).

(4) Retighten the four screws slowly in the same sequence as in step (2) using the torque screwdriver.

(5) Recheck that the specification met.



9. Upper drum eccentricity gauge removal

Remove the upper drum eccentricity gauge.

10. Soldering the leads of slip ring assembly

Solder the three leads of the slip ring assembly.
(Refer to Section “2-3. Slip Ring Assembly Replacement”.)

11. Brush assembly installation

Attach the brush assembly.
(Refer to Section “2-2. Brush Replacement”.)

12. Brush cover installation

Attach the brush cover.
(Refer to Section “2-2. Brush Replacement”.)

13. Cleaning of video heads and tape running surfaces

Clean the following portions using a cleaning cloth moistened with cleaning fluid :

- Video heads (Refer to the Maintenance Manual Part 1, Section 5-2.)
- Tape running surface of the upper drum (Refer to the Maintenance Manual Part 1, Section 5-2.)
- Tape running surface and lead of the lower drum (Refer to the Maintenance Manual Part 1, Section 5-2.)

Note

After cleaning, be sure to dry the relevant area using a dry cleaning cloth.

Adjustments after Replacement

14. Tape path adjustment

(Refer to Section 3-1-1.)

15. RF system adjustment

(Refer to Section 5-5.)

2-5. Drum Assembly Replacement

Overview

Replacement

Video head cleaner assembly removal
Drum assembly removal
Cleaning of contact surfaces
Drum assembly installation
Video head cleaner assembly installation
Cleaning of video heads and tape running surfaces

Adjustment after replacement

Video head cleaner assembly position adjustment (Refer to Section 2-8.)
Tape path adjustment (Refer to Section 3-1-1.)
RF system adjustment (Refer to Section 5-5.)

Precaution

When replacing the drum assembly, be careful not to damage the CTL head, CUE/TC head, and peripheral tape guides.
Also, be careful not to break the video heads of the drum assembly during replacement.

Basic Knowledge

Aside from the periodic replacement, the drum assembly needs to be replaced in the following cases :

- If the drum assembly becomes unusable due to a scratch on the tape running surface of the upper or lower drum.
- If the proper RF waveform does not appear after the tracking adjustment due to wearing out of the upper or lower drum.
- If the performance of the VTR is decreased such as jitter or noise due to the wearing out of the bearings.

Preparation

1. Set the unit to the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section 1-6.)

Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

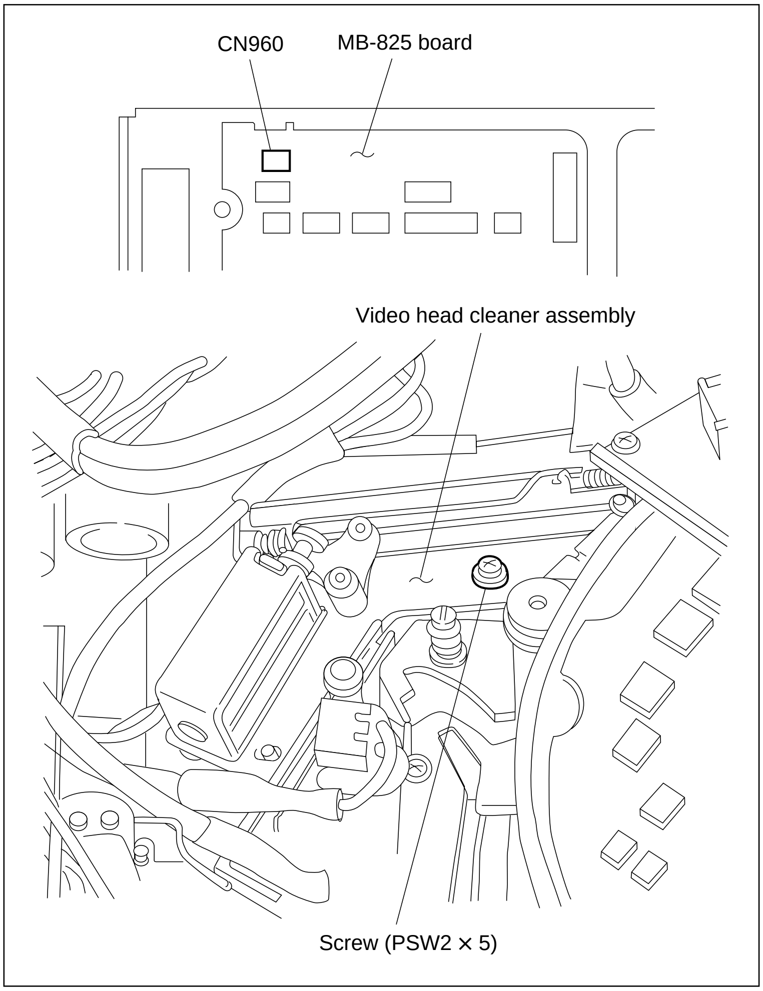
Removal

1. Video head cleaner assembly removal

(1) Put the unit into the unthreading end mode.

(2) Disconnect the connector CN960 (video head cleaner solenoid) on the MB-825 board.

(3) Remove one screw, then remove the video head cleaner assembly.


CN960
MB-825 board
Video head cleaner assembly
Screw (PSW2 × 5)

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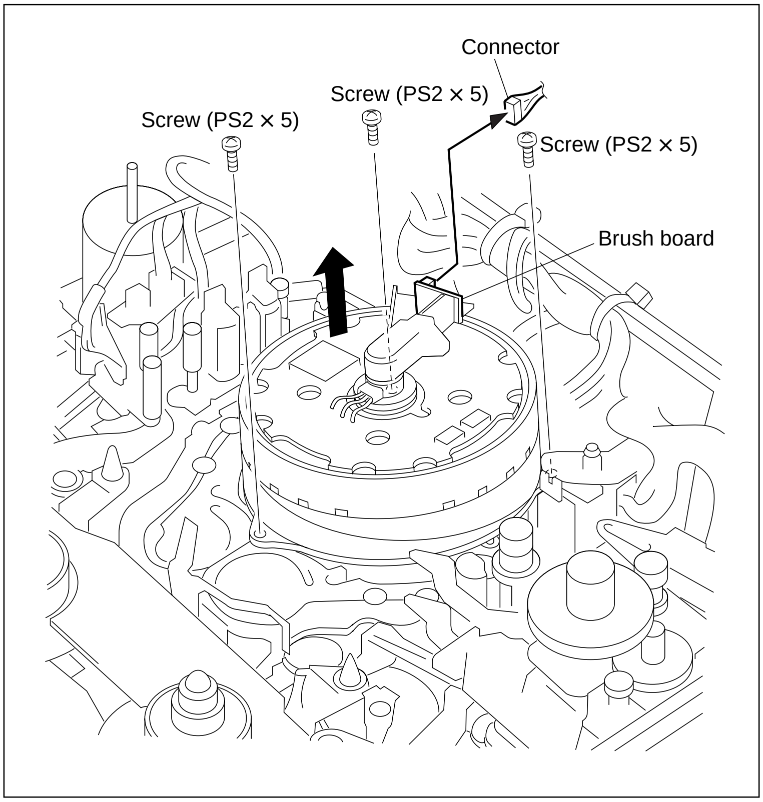
2. Drum assembly removal

(1) Disconnect the connector connected to the brush board.

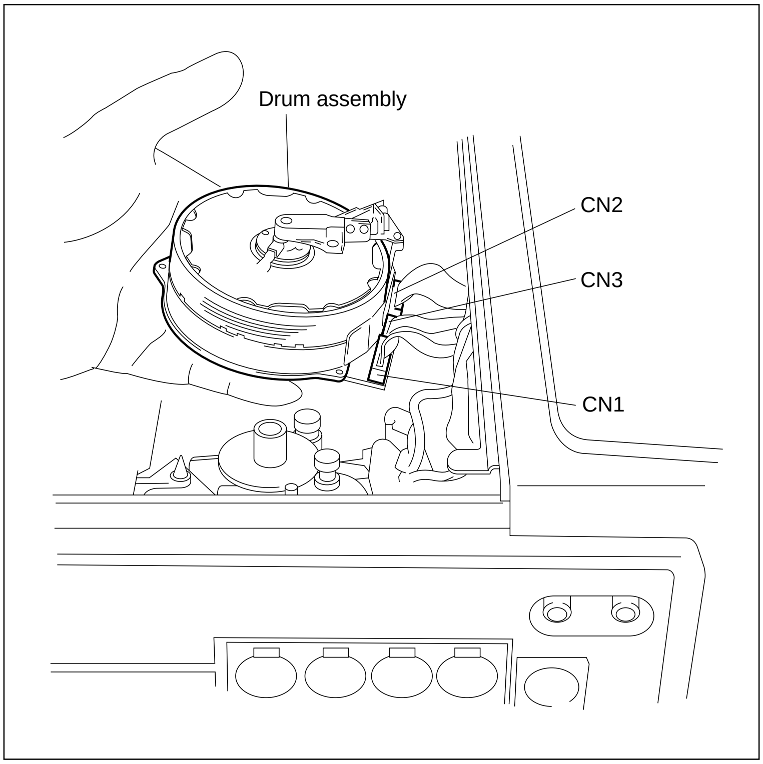
(2) Remove the three screws which secure the drum assembly.


Connector
Screw (PS2 × 5)
Screw (PS2 × 5)
Screw (PS2 × 5)
Brush board

(3) Lift the drum assembly just above, and then disconnect the three harnesses from the connectors CN1, CN2 and CN3 on the board at the bottom of the drum.

Note

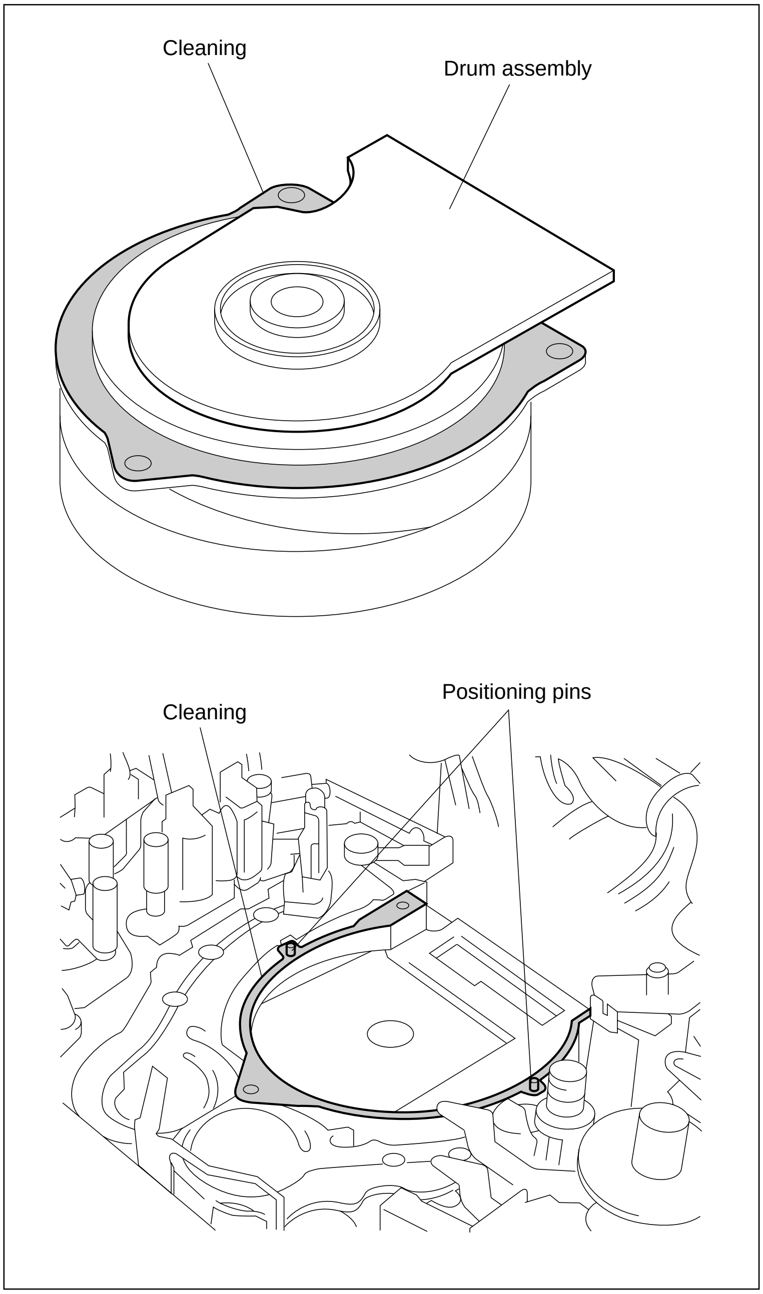
When removing the drum assembly, be careful not to damage the CTL head, CUE/TC head, and peripheral tape guides.


Drum assembly
CN2
CN3
CN1

Installation

3. Cleaning of contact surfaces

Clean the contact surfaces of a new drum assembly and chassis using a cleaning cloth moistened with cleaning fluid. (Shaded portion in the figure.)


Cleaning
Drum assembly
Cleaning
Positioning pins

4. Drum assembly installation

(1) Hold the new drum assembly and reconnect the three harnesses to the connectors (CN1, CN2, and CN3) disconnected in step “2. Drum assembly removal”.

Notes

- Grasp the new drum assembly by no-video heads portions.
- Keep the drum assembly from contact with the CTL head, CUE/TC head, and peripheral tape guides.
- Do not load to the brush.

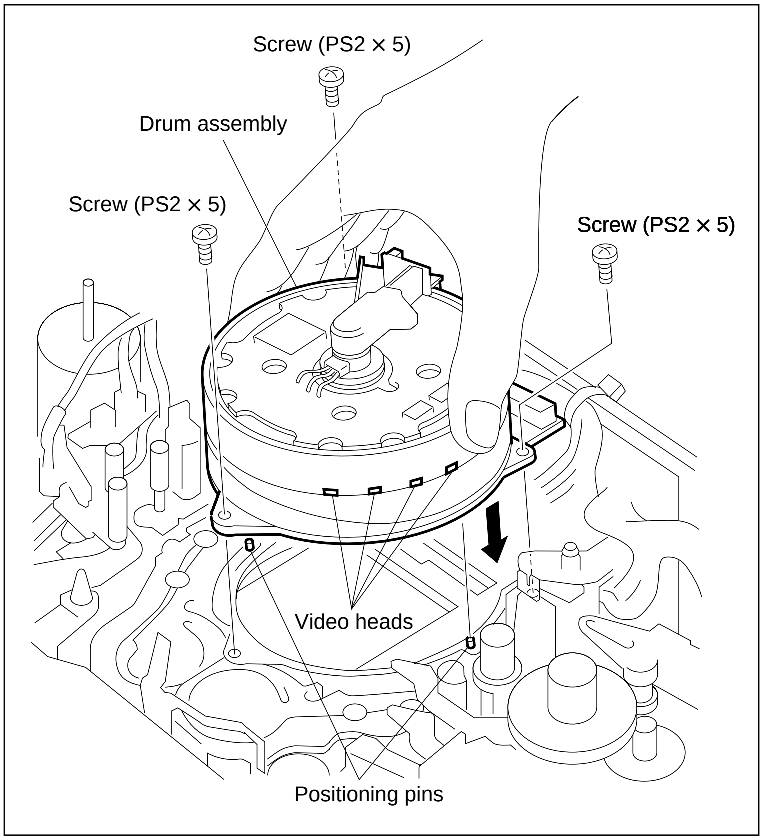
(2) Align the holes of the drum assembly with the two positioning pins of the chassis, and then attach it.

(3) Slightly move the drum assembly to check that the positioning pins are properly inserted into the holes of the drum assembly.

(4) Tighten the three screws.

(5) Connect the harness connector to the brush board.

(6) Ensure that the brush correctly contacts with the grooves of the slip ring.



5. Video head cleaner assembly installation

(1) Attach the video head cleaner assembly with one screw.

Note

Keep the video head cleaner assembly from contact with the drum assembly (especially the video heads).

(2) Connect the harness connector of the video head cleaner solenoid to the connector CN960 on the MB-825 board.

6. Cleaning of video heads and tape running surfaces

Clean the following portions using a cleaning cloth moistened with cleaning fluid.

- Video heads (Refer to the Maintenance Manual Part 1, Section 5-2.)
- Tape running surface of the upper drum (Refer to the Maintenance Manual Part 1, Section 5-2.)
- Tape running surface and lead of the lower drum (Refer to the Maintenance Manual Part 1, Section 5-2.)

Note

After cleaning, be sure to dry the relevant area using a dry cleaning cloth.

Adjustments after Replacement

7. Video head cleaner assembly position adjustment

(Refer to Section 2-8.)

8. Tape path adjustment

(Refer to Section 3-1-1.)

9. RF system adjustment

(Refer to Section 5-5.)

2-6. Driving Belt Replacement

Overview

Driving belt removal
Cleaning
Driving belt installation
Closing the back side of chassis

Precaution

The replacement procedure for supply side driving belt is the same as for take-up side ones.

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.

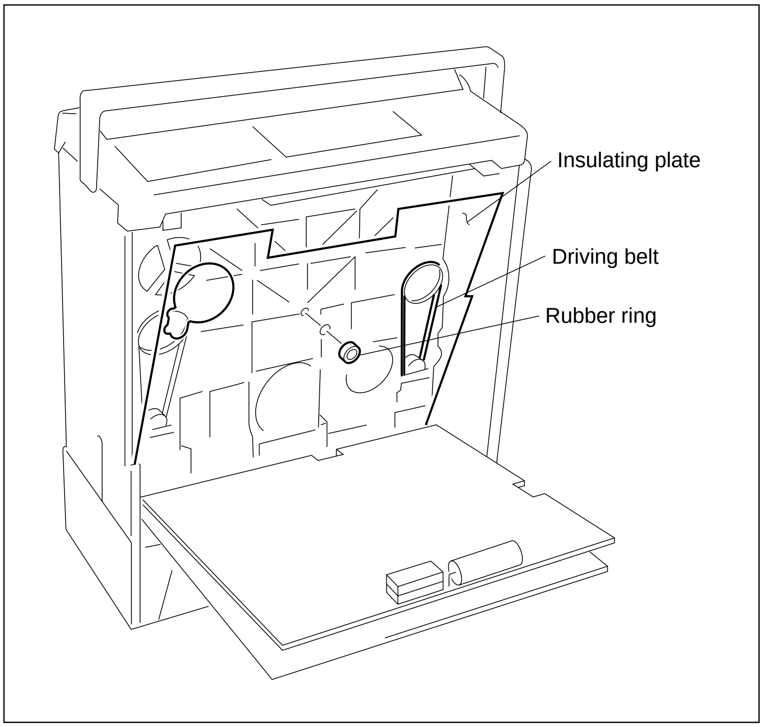
Tools

- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

Removal

1. Driving belt removal

(1) Remove the bottom plate. (Refer to the Maintenance Manual Part 1, Section 1-5.)
(2) Open the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)
(3) Remove the rubber ring attached to the boss in the center of the chassis, and then remove the insulating plate.
(4) Remove the driving belt.



Installation

2. Cleaning

Clean the following portions using a cleaning cloth moistened with cleaning fluid.

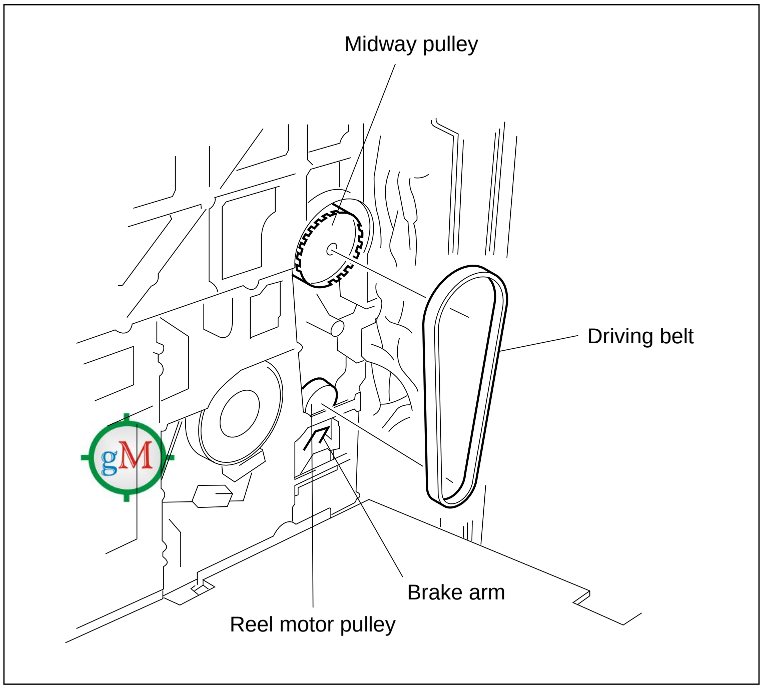
- S/T reel motor pulleys
- Surface of the S/T brake arm which touches the belt
- S/T midway pulleys
- New driving belt

3. Driving belt installation

(1) While releasing the brake arm with finger, loop the driving belt over the reel motor pulley with its white mark outside.

(2) While holding the driving belt to prevent it from becoming came off from the reel motor pulley, slowly turn the midway pulley and loop the belt over the midway pulley.

(3) Turn the midway pulley by hand two or three turns while releasing the brake arm with fingers, and check that the driving belt is put in the center of the reel motor pulley and midway pulley.



4. Closing the back side of chassis

(1) Attach the insulating plate while aligning the center hole of the insulating plate with the boss at the center of the chassis, and then fix it using the rubber ring.
   - Check that each lever and pin are put into each hole of the insulating plate.

(2) Attach the VPR-53 and SST-13 boards.
(Refer to Sections 4-2 and 4-3.)

(3) Attach the bottom plate.
(Refer to the Maintenance Manual Part 1, Section 1-5.)

2-7. Pinch Roller Arm Assembly Replacement

Overview

Replacement

Pinch roller arm assembly removal
Cleaning of fixing shaft
Pinch roller arm assembly installation
Operation check
Pinch roller cleaning

Adjustment after replacement

T-side running check (Refer to Section 3-2-16.)

Precaution

If the pinch roller worn out, replace the entire pinch roller arm assembly.

Preparation

1. Put the unit in the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Notes

- The pinch roller arm assembly can be replaced with the cassette compartment attached to the unit.
- The stop washer is used to fix the pinch roller arm assembly. When replacing, a new stop washer (3-726-829-01) is required.

Tools

• Stop washer fastening tool :	J-6323-530-A
• Cleaning cloth :	3-184-527-01
• Cleaning fluid :	9-919-573-01

Removal

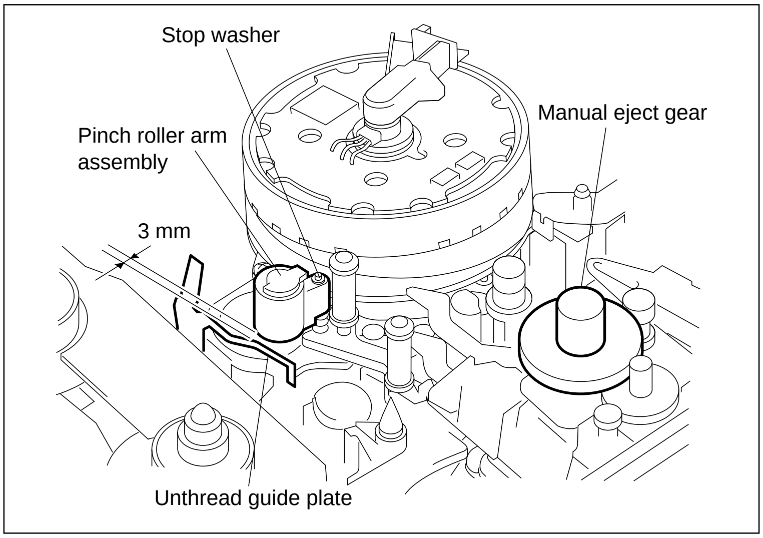
1. Pinch roller arm assembly removal

(1) Turn the manual eject gear clockwise until the pinch roller is positioned at the point 3 mm away from the unthread guide plate.

(2) Remove the stop washer and the pinch roller arm assembly.

Notes

- Be careful not to lose the return spring when removing the pinch roller arm assembly.
- When removing, take care not to damage the drum and peripheral parts with a tool.


Stop washer
Manual eject gear
Pinch roller arm assembly
3 mm
Unthread guide plate

Installation

2. Cleaning of fixing shaft

Clean the fixing shaft of the pinch roller arm assembly using a cleaning cloth moistened with cleaning fluid.

3. Pinch roller arm assembly installation

(1) Slide a new pinch roller arm assembly onto the fixing shaft, and then attach the return spring as shown in the figure.

(2) Fix the pinch roller arm assembly using a new stop washer (3-726-829-01) while holding the T drawing arm with fingers.

4. Operation check

Press the pinch roller assembly toward the drum, and then release it to check to see that the pinch roller assembly smoothly returns to the original position.

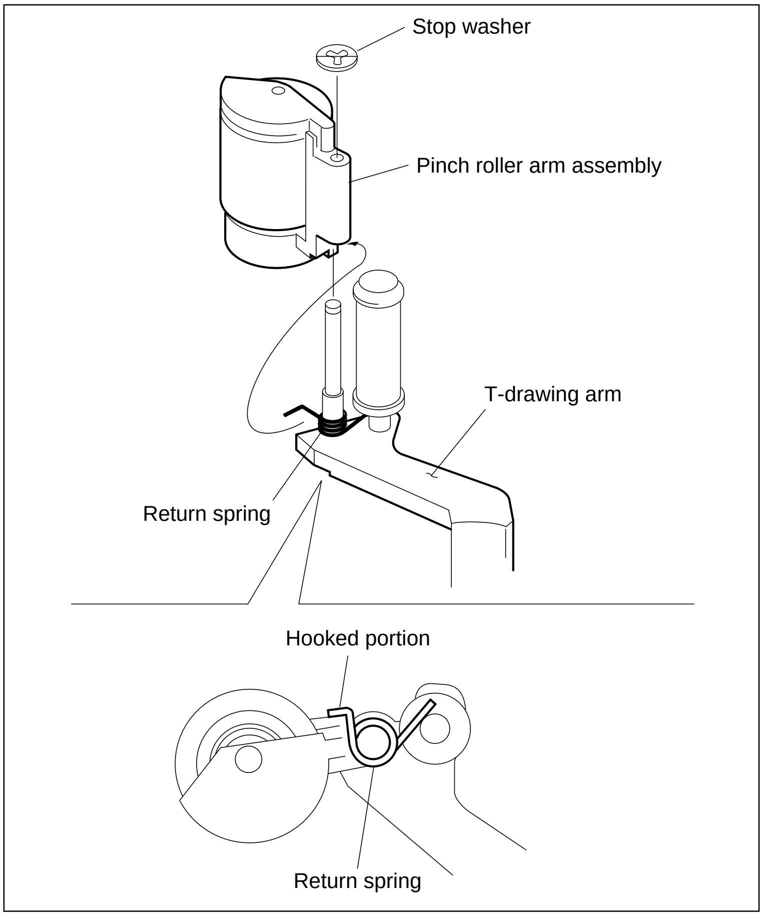
5. Pinch roller cleaning

Clean the pinch roller surface using a cleaning cloth moistened with cleaning fluid.

Adjustment after Replacement

6. T-side running check

(Refer to Section 3-2-16.)


Stop washer
Pinch roller arm assembly
T-drawing arm
Return spring
Hooked portion
Return spring

2-8. AHC Roller Assembly Replacement

Overview

Video head cleaner assembly removal
AHC roller assembly replacement
Video head cleaner assembly installation
Video head cleaner assembly position adjustment
Operation check

Precaution

When replacing the AHC roller assembly (cleaning roller for video head), be careful not to damage the drum assembly, CTL head, and peripheral tape guides.

Preparation

1. Put the unit in the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Note

The AHC roller assembly is attached by the part called CR cap.
When replacing, a new CR cap (3-615-320-01) is required.

Removal

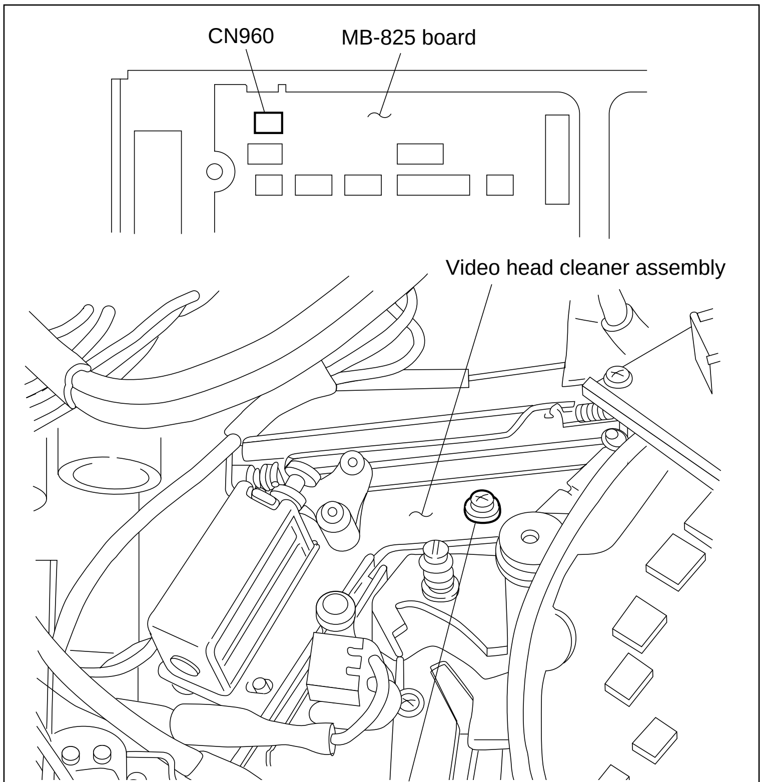
1. Video head cleaner assembly removal

(1) Disconnect the connector CN960 (video head cleaner) on the MB-825 board.

(2) Remove one screw and the video head cleaner assembly.

Note

When removing, keep the cleaner assembly from contact with the drum assembly (especially the video head).



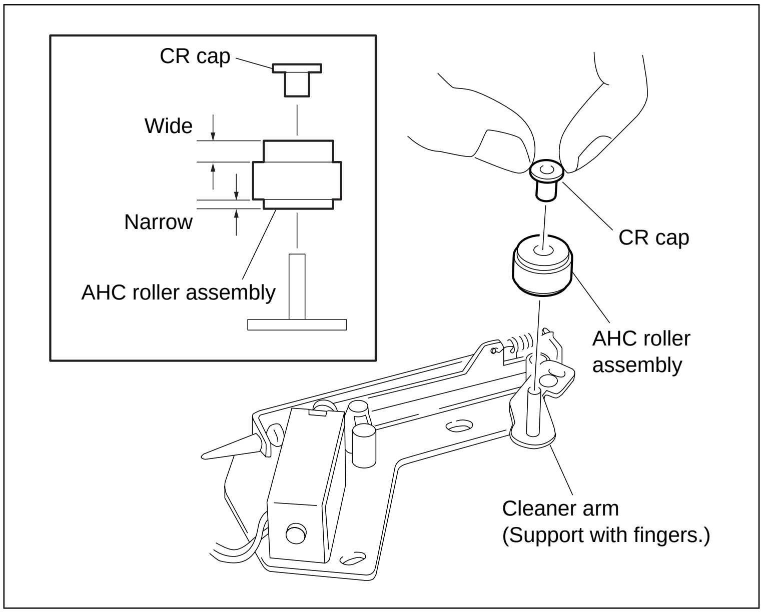
Installation

2. AHC roller assembly replacement

(1) Remove the CR cap shown in the figure with fingers.
(2) Remove the AHC roller assembly.
(3) Slide a new AHC roller assembly onto the shaft positioning as shown in the figure.
(4) Push a new CR cap with fingers as far as it will go while supporting the indicated portion of the cleaner arm with fingers.
(5) Check that the tip of the shaft does not protrude from the CR cap surface.

Notes

- It is recommended that the tip of the shaft is dented from the surface of the CR cap by 0.3 mm.
- Be careful not to touch the white felt portion of the AHC roller assembly as far as possible.
- Never apply oil to the white felt portion of the AHC roller assembly.



3. Video head cleaner assembly installation

(1) Temporarily attach the video head cleaner assembly with one screw.

Note

When attaching, keep the video head cleaner assembly from contact with the drum assembly (especially the video head).

(2) Connect the harness connector to the connector CN960 on the MB-825 board.

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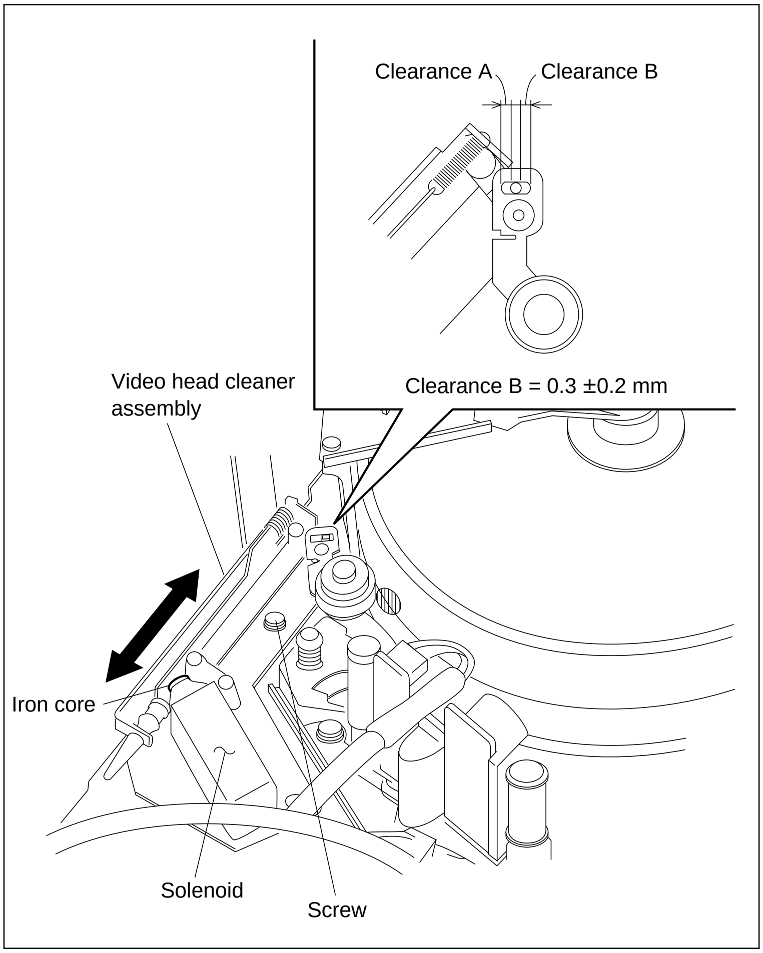
4. Video head cleaner assembly position adjustment

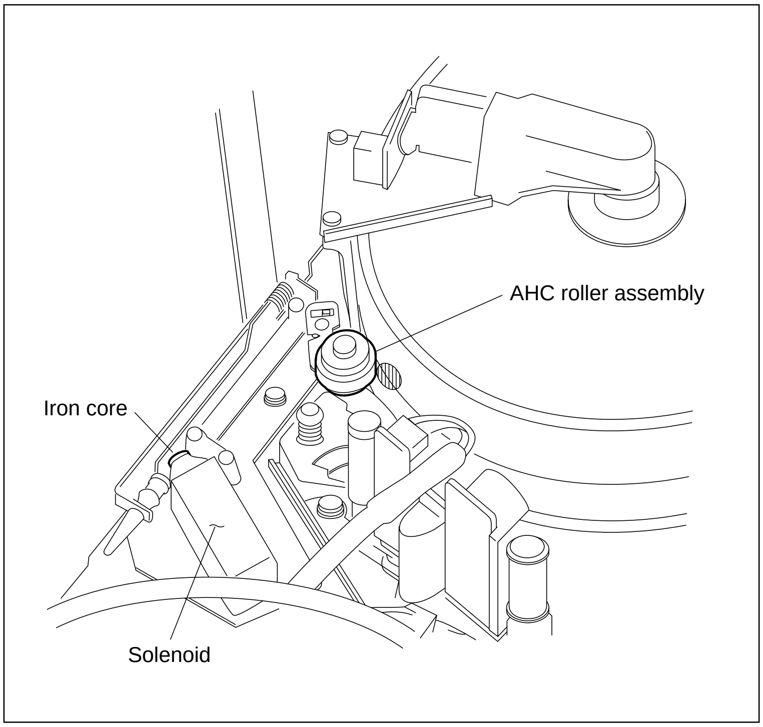
(1) With the iron core of the solenoid is pressed in with finger to activate the solenoid, move the video head cleaner in the directions of the arrow until the clearance between the pin and bracket meets the specification (clearance B). And then retighten the screw that was loosely tightened in step (1) of "3. Video head cleaner assembly installation."

(2) Check that the specification is met again.

5. Operation check

Push the iron core of the video head cleaner assembly solenoid with fingers to activate the solenoid. Check that the AHC roller assembly touches the drum (video head portion) shown in the figure.


Clearance A
Clearance B
Clearance B = 0.3 ±0.2 mm
Video head cleaner assembly
Iron core
Solenoid
Screw


AHC roller assembly
Iron core
Solenoid

2-9. CUE Brush Replacement

Overview

CUE brush removal
CUE brush installation
Operation check

Preparation

1. Put the unit in the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Note

The stop washer is used to fix the CUE brush.
When replacing, a new stop washer (3-321-393-01) is required.

Removal

1. CUE brush removal

Remove the stop washer at the top of the cleaner arm to remove the CUE brush.

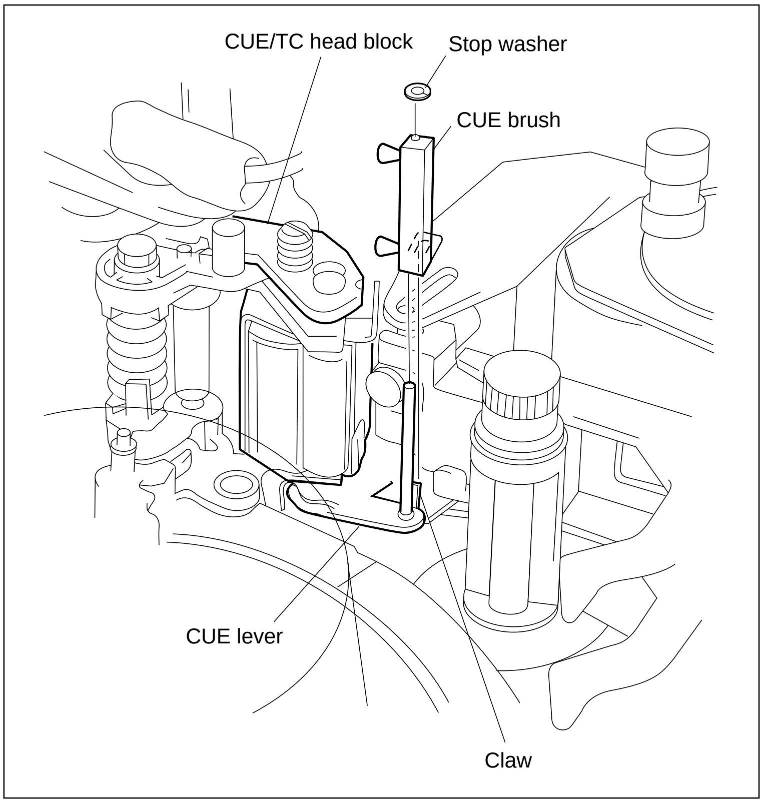
Installation

2. CUE brush installation

(1) Slide a new CUE brush onto the cleaner arm shaft and put the claw at the bottom of the CUE brush securely in the hook of the cleaner arm.
(2) Attach the CUE brush using a new stop washer (3-321-393-01) while holding the CUE lever from the bottom with fingers.

3. Operation check

Check that the CUE brush moves and touches the CUE/TC head surface for cleaning when the manual eject gear is turned clockwise and counterclockwise while it is pushed downward.



2-10. Pinch Solenoid Assembly Replacement

Overview

Replacement

Pinch solenoid assembly removal
Pinch solenoid assembly installation

Adjustment after replacement

Pinch solenoid assembly position adjustment
T-side running check (Refer to Section 3-2-16.)

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Removal the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section 1-6.)

Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- Wire clearance gauge : J-6152-450-A

Removal

1. Pinch solenoid assembly removal

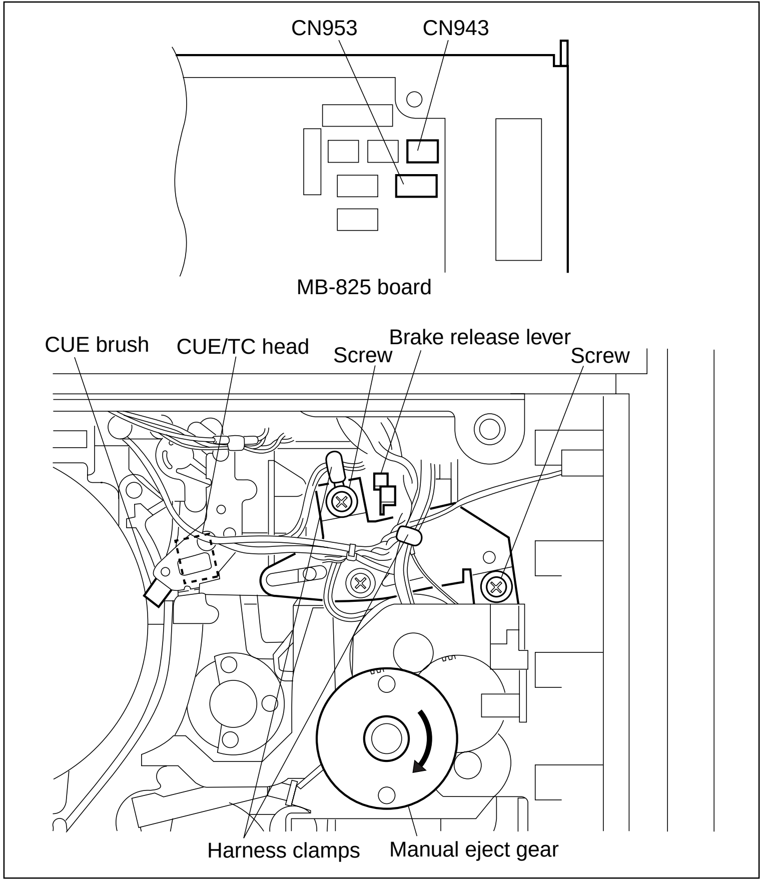
(1) Disconnect the connectors CN943 (reel motor connector) and CN953 (pinch solenoid connector) at the right side of the MB-825 board.

(2) Unfold the harness clamps.

(3) Remove the two screws of the pinch solenoid assembly.

(4) With the brake release lever is pulled, turn the manual eject gear clockwise while pressing it downward until the CUE brush touches the CUE/TC head.

(5) Remove the pinch solenoid assembly from the unit while moving it toward the MB-825 board.



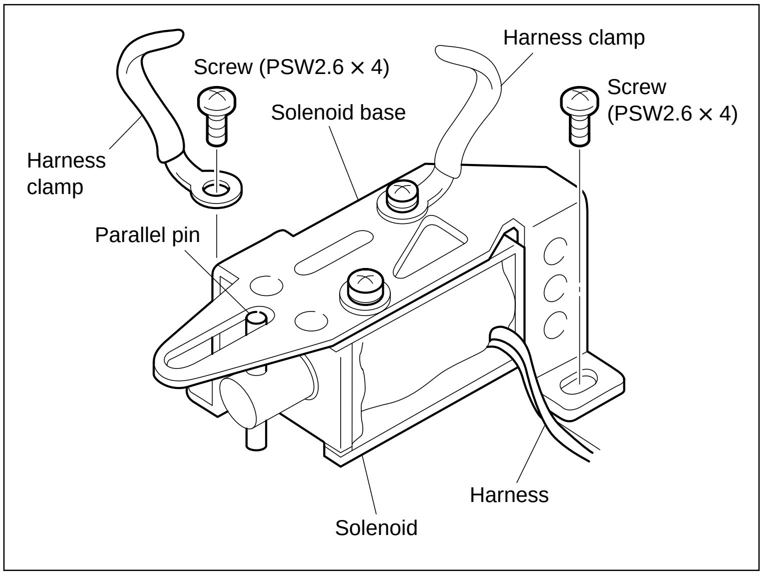
Installation

2. Pinch solenoid assembly installation

(1) Attach the pinch solenoid assembly to the chassis while putting the parallel pin of an iron core into the groove of the pinch lever, and fix the pinch solenoid assembly with the two screws.

(2) Connect the harness connector of the pinch solenoid to connector CN953 and the connector of the reel motor to connector CN943 on the MB-825 board.

(3) Fasten the harness by the harness clamp.


Harness clamp
Screw (PSW2.6 × 4)
Screw
(PSW2.6 × 4)
Solenoid base
Harness
clamp
Parallel pin
Harness
Solenoid

Adjustment after Replacement

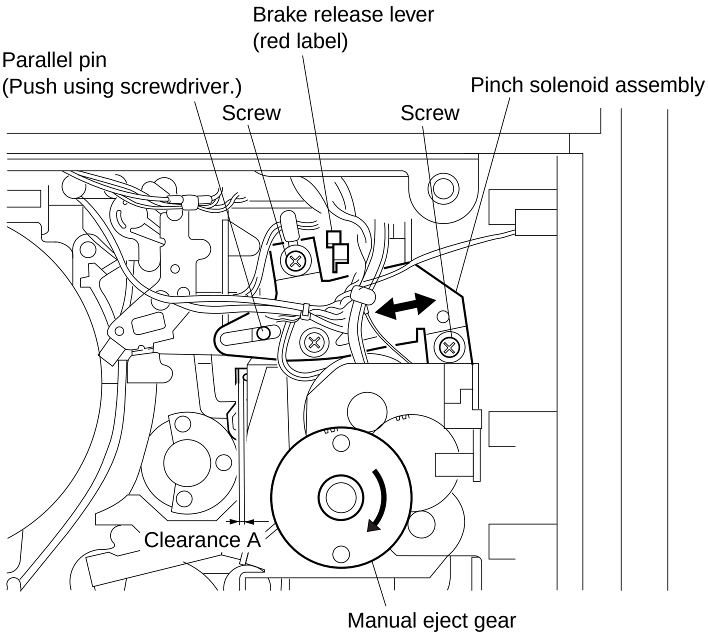
3. Pinch solenoid assembly position adjustment

(1) With the brake release lever is pulled, turn the manual eject gear while pressing it downward to put the unit into the threading end mode.

(2) Press in the upper portion of the parallel pin of the iron core with a 2 mm flat screwdriver, and check to see that the clearance A shown in the figure meets the specification. If not, perform the following steps.

(3) Loosen the two screws fixing the pinch solenoid assembly to the chassis, and then move the pinch solenoid assembly in either direction of the arrows, until the clearance A becomes within the specification, finally tighten the screws.

(4) Perform step (2) again and check that the specification is met.


Brake release lever
(red label)
Parallel pin
(Push using screwdriver.)
Pinch solenoid assembly
Screw
Screw
Clearance A
Manual eject gear

Specification : A = 0.3 ±0.1 mm

4. T-side running check

(Refer to Section 3-2-16.)

2-11. Tension Regulator Replacement

2-11-1. Tension Regulator Roller Replacement

Overview

Replacement

Tension regulator roller replacement
Tape guide height check

Adjustment after replacement

Tension regulator adjustment (Refer to Section 3-3-1.)
Tape path adjustment (Refer to Section 3-1-1.)

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.

Tools

- Tape guide adjustment screwdriver (45) : J-6322-420-A
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

Removal and Installation

1. Tension regulator roller (S5 guide) replacement

(1) Turn the setscrew at the top of the tension regulator roller counterclockwise by 180 degrees to loosen it.

Note

When the setscrew is not tighten or loosened until step (5) is completed after it is loosened, the adjustment after tape guide replacement becomes easier.

(2) Turn the upper flange counterclockwise and remove it.

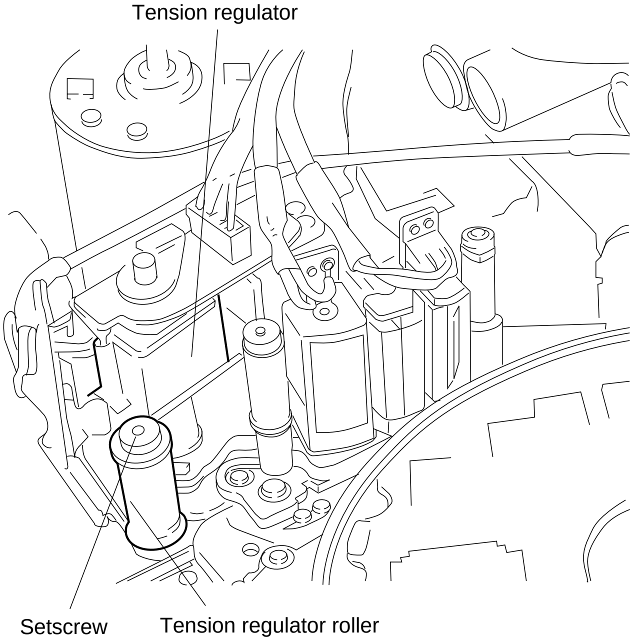
(3) Remove the tension regulator roller.
The two pieces of roller Cs are removed simultaneously.

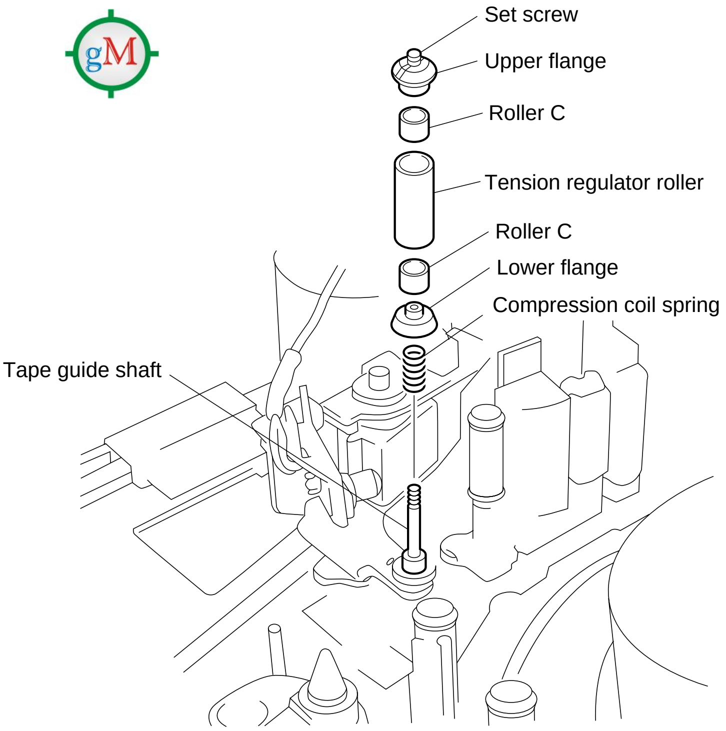
(4) Attach the roller C, a new tension regulator roller and another roller C sequentially onto the tape guide shaft.

(5) Turn the setscrew of the upper flange removed in step (2) clockwise by 180 degrees. (Turn same degrees in the opposite direction in step (1).)

(6) Attach the upper flange onto the tape guide shaft by turning it clockwise as far as it will go.

(7) Clean the outer circumference of the tension regulator roller using a cleaning cloth moistened with cleaning fluid.


Tension regulator
Setscrew
Tension regulator roller


Set screw
Upper flange
Roller C
Tension regulator roller
Roller C
Lower flange
Compression coil spring
Tape guide shaft

2. Tape guide height check

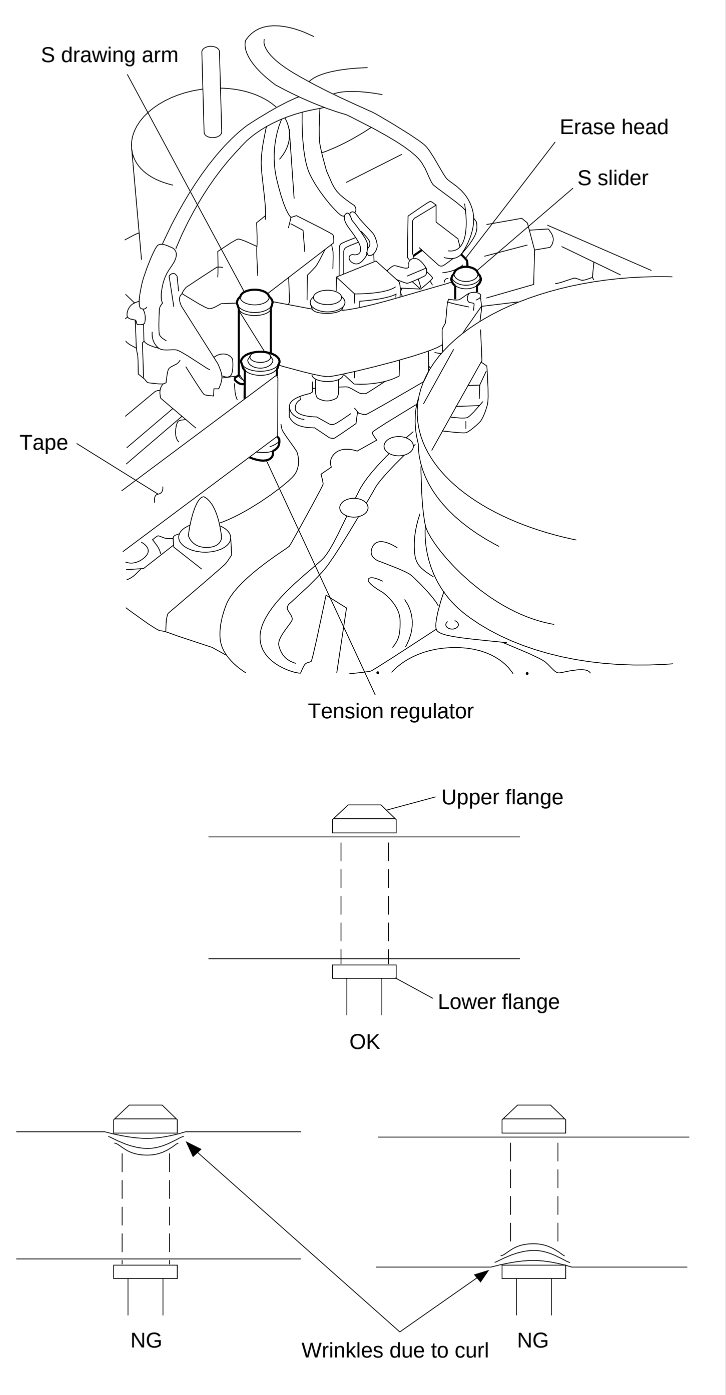
(1) Insert the cassette tape into the cassette compartment.

(2) Push the manual eject gear downward and turn it clockwise while pulling the brake release lever which the red label is attached to until the S slider reaches around the erase head.

(3) While pulling the brake release lever, turn the manual eject gear counterclockwise a little so that the threaded tape is stretched taut.
The tape is then pulled out from the cassette tape and threaded to the tension regulator roller.

(4) Check that the tape is threaded without curling on the upper and lower flanges of the tension regulator roller.
If the tape curls, perform the S5 (tension regulator) guide adjustment of Section "2-30. Tape Guide Replacement".

(5) Push the manual eject gear downward and turn it counterclockwise while pulling the brake release lever toward the side of the front panel.
The unit is then put into the unthreading mode, and the drawn tape is rewound to the cassette.


S drawing arm
Erase head
S slider
Tape
Tension regulator
Upper flange
Lower flange
OK
NG
Wrinkles due to curl
NG

Adjustment after Replacement

3. Tape running rough adjustment

(1) Turn on the power.

(2) Insert the used cassette tape into the cassette compartment.

(3) Put the unit into the PLAY mode and check to see that the tape runs without curling on the upper and lower flanges of the tension regulator roller. If the tape curls, find which flange the tape curls on and adjust according to the following procedures.

   (a) Put the unit into the STOP mode.

   (b) Loosen the setscrew of the upper flange.

   (c) Turn the upper flange.
      - Tape curls on the lower flange: turn clockwise
      - Tape curls on the upper flange: turn counterclockwise

   (d) Tighten the setscrew.

   (e) Put the unit into the PLAY mode and check that the tape runs without curling. When the tape curls, perform the adjustment again.

(4) Press the EJECT button and take out the cassette tape.

4. Tension regulator adjustment

(Refer to Section 3-3-1.)

5. Tape path adjustment

(Refer to Section 3-1-1.)

2-11-2. Replacing the Tension Regulator Assembly

Overview

Replacement

Disconnection of connectors
Tension regulator assembly removal
Tension regulator assembly installation
Connection of connectors

Adjustment after replacement

Tension regulator adjustment (Refer to Section 3-3-1.)
Tape path adjustment (Refer to Section 3-1-1.)

Preparation

1. Set the unit to the unthreading mode.
2. Turn off the power.

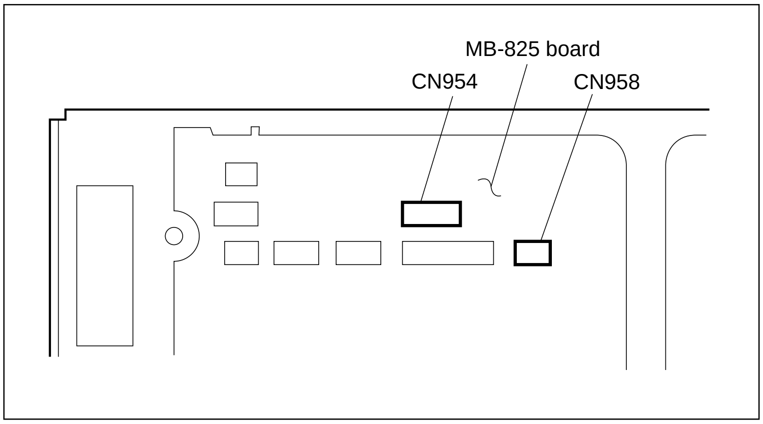
Tools

- Torque cassette (FWD back ten) : J-6323-890-A
- S-tension arm positioning pin : J-7031-030-A
- Weight for S-tension adj. (W76.4) : J-7031-040-A
- Weight for S-tension adj. (W44) : J-7031-050-A
- S-TEN adjusting table : J-7031-280-A
- END sensor positioning tool : J-7031-450-B
- Digital boltmeter
- HDCAM cassette BCT-40HD : Standard product
- Regulated DC power supply (AC550 or others)

Removal and Installation

1. Disconnection of connectors

Cut the tie-wrap that ties the harnesses, and then disconnect the harnesses from the two connectors CN954 (TR-57 board) and CN958 (tape end sensor) on the MB-825 board.

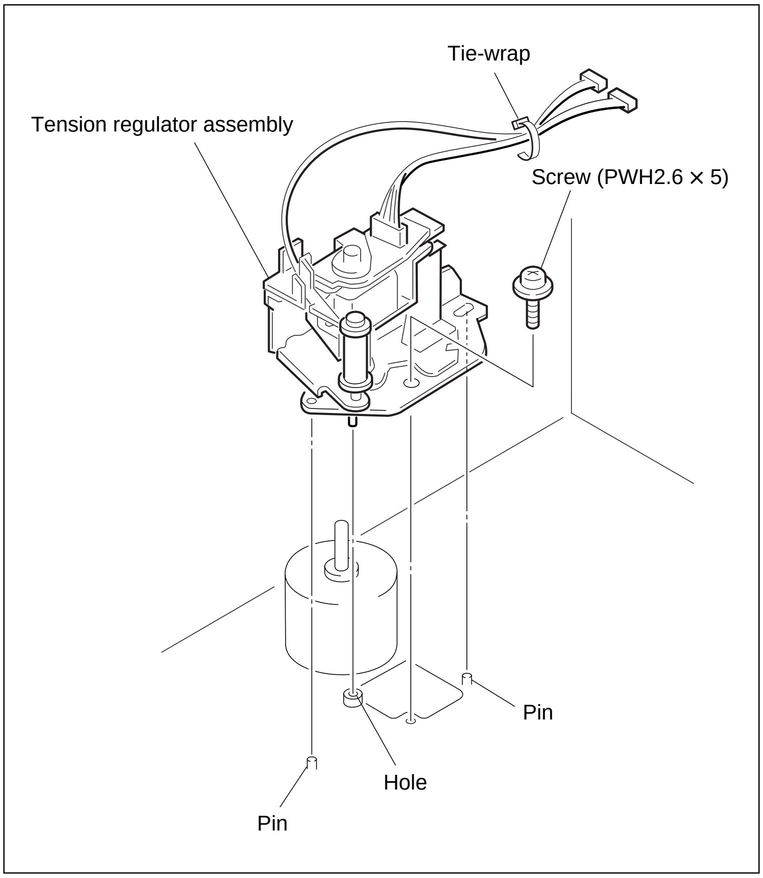


2. Tension regulator assembly removal

Remove the screw to remove the tension regulator assembly.

3. Tension regulator assembly installation

Fasten a new tension regulator assembly using the screw while aligning it with the hole of the chassis and the two pins.



4. Connection of connectors

Connect the harness connector to the following connectors of the MB-825 board, and then tie the harness using the tie-wrap.

- CN954 : Harness connector of the TR-57 board
- CN958 : Harness connector of the tape end sensor

Adjustment after Replacement

5. Tension regulator adjustment

(Refer to Section 3-3-1.)

6. Tape path adjustment

(Refer to Section 3-1-1.)

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2-12. S Reel Brake Solenoid Replacement

Overview

Disconnection of connectors
S reel motor assembly removal
S reel brake solenoid replacement
Solenoid position adjustment
Locking compound applying
Opening the back side of chassis
Cleaning
S reel motor assembly installation
Closing the back side of chassis
Connection of connectors

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

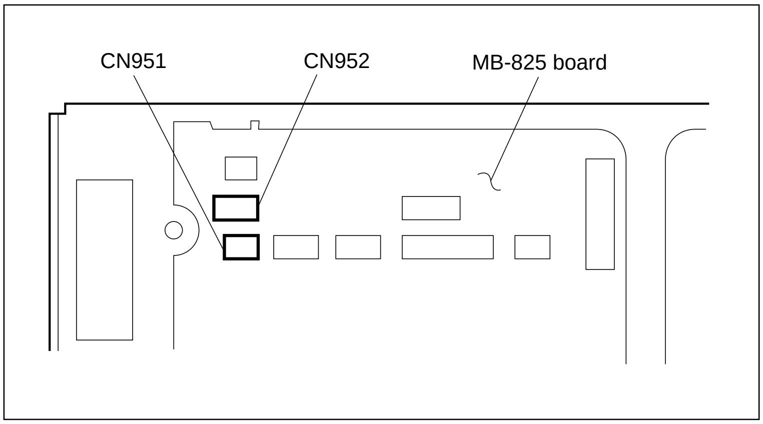
Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- Thickness gauge : 9-911-053-00
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

Removal

1. Disconnection of connectors

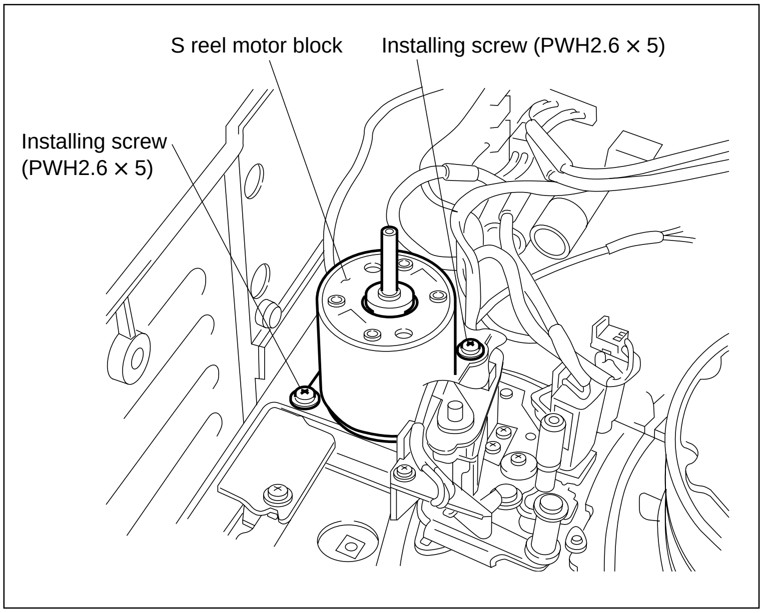
(1) Disconnect the harnesses from the connectors CN951 (S reel motor) and CN952 (S brake solenoid) on the MB-825 board.



2. S reel motor assembly removal

Remove the two screws and the S reel motor assembly.

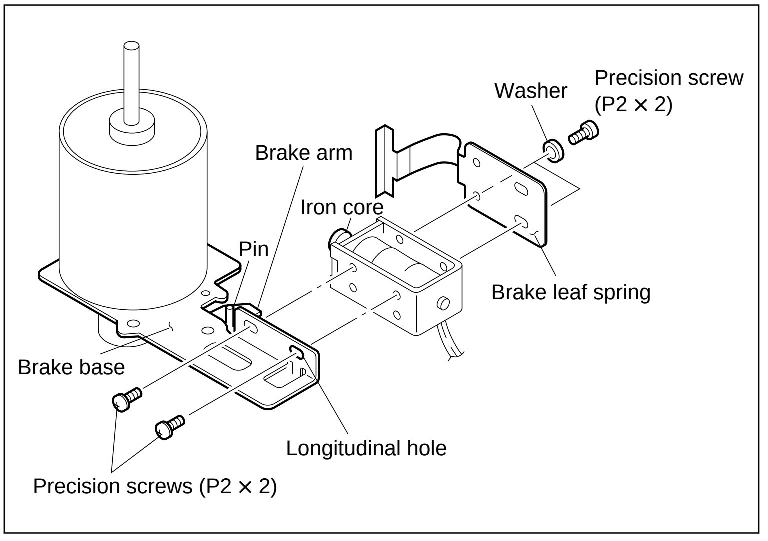
At that time, the driving belt put on the S reel motor pulley on the back side of the chassis is came off at the same time, and it is left on the back side of the chassis.


S reel motor block
Installing screw (PWH2.6 × 5)
Installing screw
(PWH2.6 × 5)

Installation

3. S reel brake solenoid replacement

(1) Remove the two precision screws and washer to remove brake leaf spring.
(2) Remove the two precision screws on the side of the brake base, and then remove the solenoid from the brake base.
(3) Put the pin of the brake arm into the groove of the iron core of a new solenoid, and then loosely tighten the two precision screws to attach the solenoid to the brake base so that each screw is positioned in the center of the longitudinal hole of the brake base.
(4) Attach the brake leaf spring using the two screws.


Washer
Precision screw
(P2 × 2)
Brake arm
Iron core
Pin
Brake leaf spring
Brake base
Longitudinal hole
Precision screws (P2 × 2)

4. Solenoid position adjustment

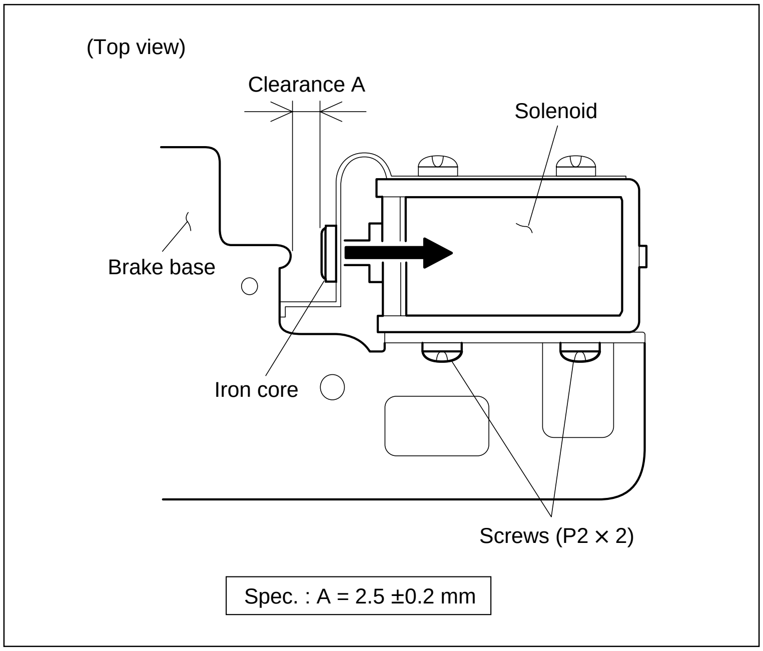
(1) Push in the iron core of the solenoid to activate the solenoid, and then slide in a thickness gauge (2.5 mm thick) between the top of the iron core and brake base (clearance A) shown in the figure.

(2) Push the solenoid toward the motor, and then retighten the two screws that have been tightened loosely on the side of the brake base.

(3) Pull out the thickness gauge.

(4) Push in the iron core of the solenoid to activate the solenoid, and then check that the clearance between the top of the iron core and brake base (clearance A) meets the specification.

If not, repeat steps (1) and (2).



5. Locking compound applying

Apply a small amount of locking compound onto the four screws tightened in steps “3. S reel brake solenoid replacement” and “4. solenoid position adjustment”.

6. Opening the back side of chassis

(1) Remove the bottom plate. (Refer to the Maintenance Manual Part 1, Section 1-5.)

(2) Open the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)

(3) Remove the rubber ring from the boss in the center of the chassis, and then remove the insulating plate.

(4) Remove the driving belt left in step “2. S reel motor assembly removal”.

7. Cleaning

Clean the following portions using a cleaning cloth moistened with cleaning fluid.

- S reel motor pulley
- Surface of the brake arm which touches the belt
- Midway pulley
- Driving belt

8. S reel motor assembly installation

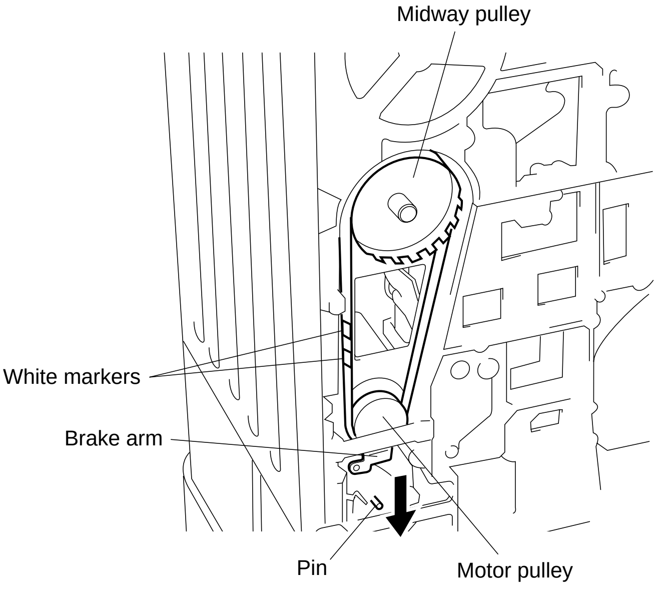
(1) Put the driving belt (its white maker outside) around the hole which the pulley of the S reel motor assembly can pass through, on the back side of the chassis.

(2) Attach the S reel motor assembly from the top of the chassis, and loop the driving belt over the motor pulley while pushing the pin of the reel brake in the direction of the arrow.

(3) Tighten the S reel motor assembly using the two screws.

(4) While holding the driving belt to prevent it from becoming came off from the motor pulley, slowly turn the midway pulley and loop the belt over the midway pulley.

(5) Turn the midway pulley by hand two or three turns while releasing the brake arm with finger, and check that the driving belt is put in the center of the motor pulley and midway pulley.

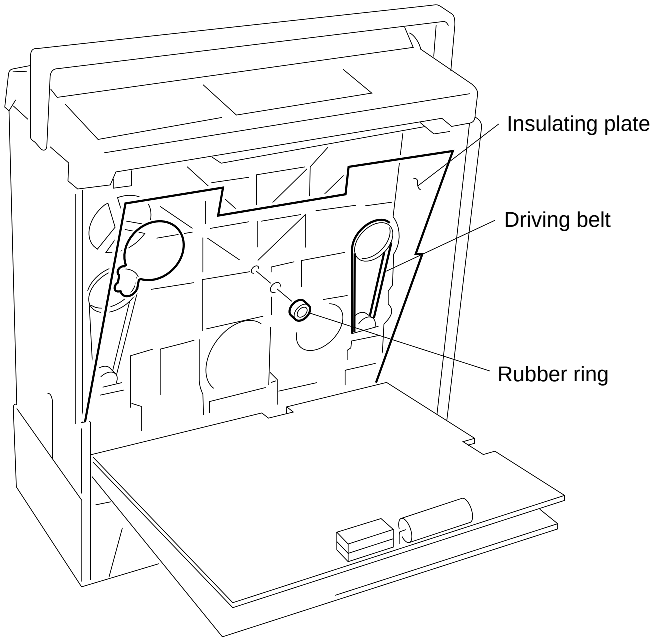


9. Closing the back side of chassis

(1) Attach the insulating plate aligning its hole with the boss in the center of the chassis, and then attach the rubber ring to the boss.
  - Check that each lever and pin are put into each hole of the insulating plate.
  - Clamp the dew sensor harness (2-conductor) with the U-shaped notch of the insulation plate so that the dew sensor harness (2-conductor) must not be caught by the midway pulley.

(2) Attach the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)

(3) Attach the bottom plate. (Refer to the Maintenance Manual Part 1, Section 1-5.)



10. Connection of connectors

Connect the harness connectors to the following connectors on the MB-825 board.

- CN951 : Harness connector of S reel motor
- CN952 : Harness connector of S brake solenoid

2-13. T Reel Brake Solenoid Replacement

Overview

Replacement

Disconnection of connectors
Manual eject assembly removal
Pinch solenoid assembly removal
T reel motor assembly removal
T reel brake solenoid replacement
Solenoid position adjustment
Brake leaf spring and brake release lever assembly installation
Locking compound applying
Opening the back side of chassis
Cleaning
T reel motor assembly installation
Closing the back side of chassis
Pinch solenoid assembly installation
Manual eject assembly installation
Pinch solenoid assembly position adjustment
Connection of connectors
Manual eject assembly position adjustment

Adjustment after replacement

T-side running check (Refer to Section 3-2-16.)

Preparation

1. Put the unit into the unthreading end mode.
2. Turn the power off .
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Tools

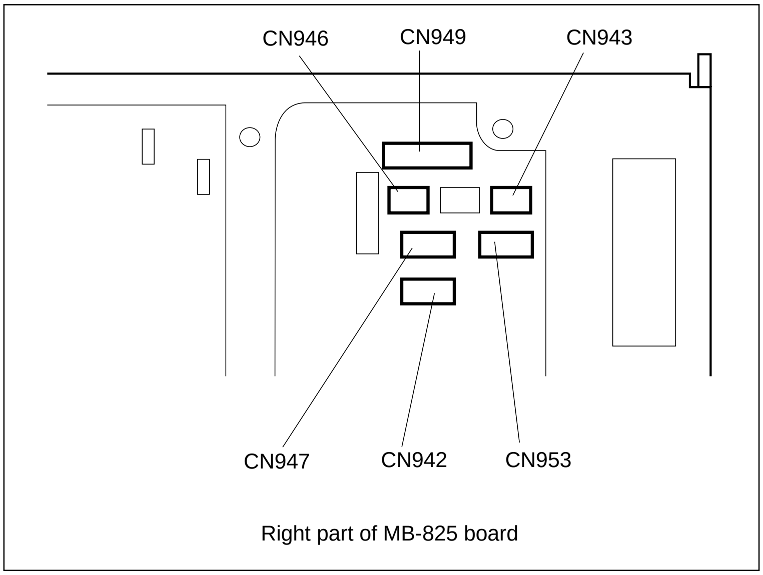
- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- Thickness gauge : 9-911-053-00
- Wire clearance gauge : J-6152-450-A
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

Removal

1. Disconnection of connectors

Disconnect the harnesses from the following connectors on the MB-825 board.

- CN942 : T brake solenoid
- CN943 : T reel motor
- CN946 : Gear block assembly
- CN947 : CUE/TC head
- CN949 : CUE/TC erase head
- CN953 : Pinch solenoid

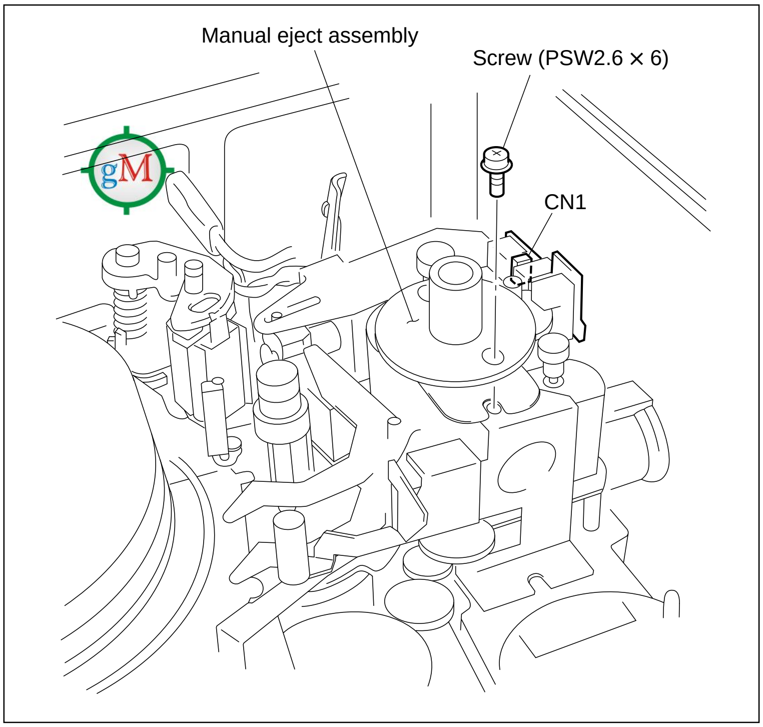

CN946
CN949
CN943
CN947
CN942
CN953

Right part of MB-825 board

2. Manual eject assembly removal

(1) Remove one screw and lift above the manual eject assembly.

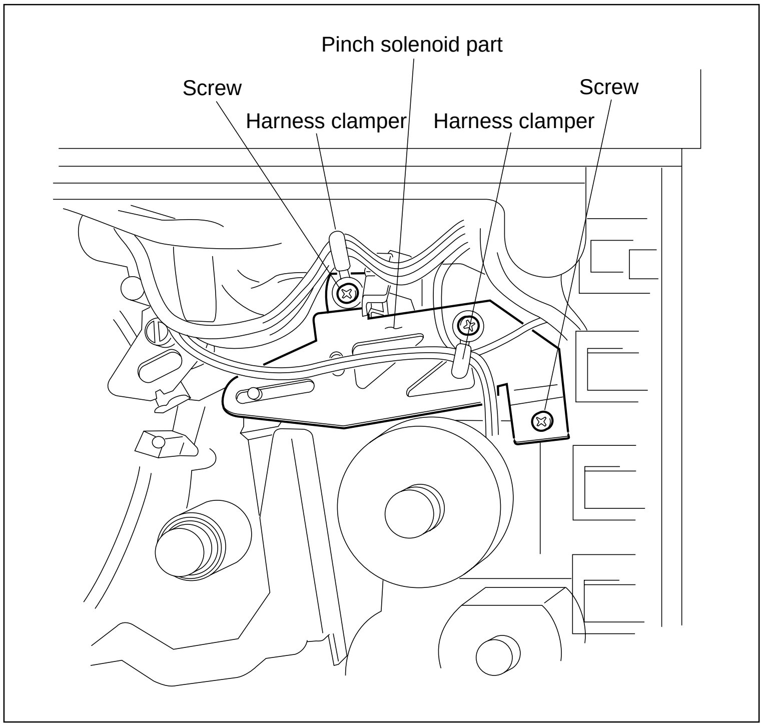
(2) Disconnect the connector (CN1) on the DET-15 board of the manual eject assembly.


Manual eject assembly
Screw (PSW2.6 × 6)
CN1

3. Pinch solenoid assembly removal

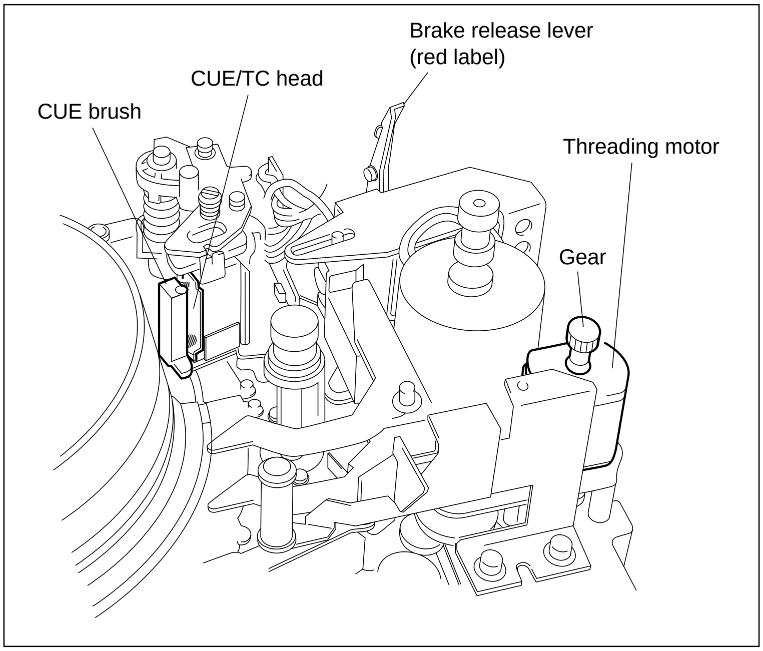
(1) Unfold the harness clamper.

(2) Remove the two screws of the pinch solenoid assembly.


Pinch solenoid part
Screw
Screw
Harness clamper
Harness clamper

(3) While pulling the brake release lever, turn the gear at the top of the threading motor clockwise with fingers until the CUE brush touches the CUE/TC head.

(4) Remove the pinch solenoid assembly from the chassis while moving it toward the MB-825 board.

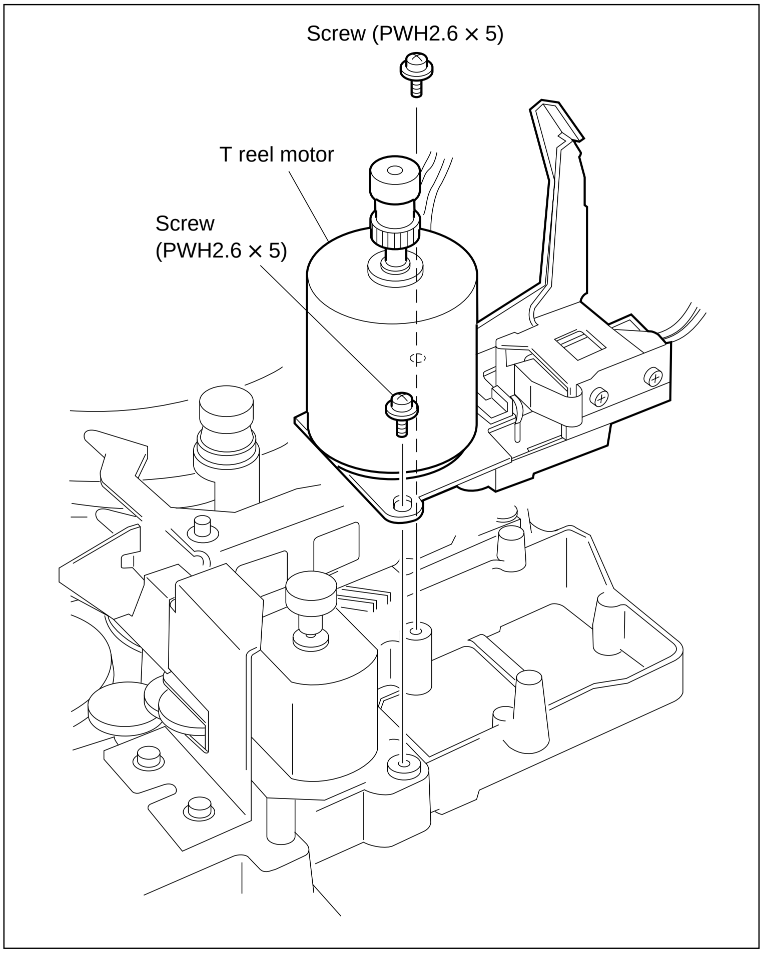

Brake release lever
(red label)
CUE/TC head
CUE brush
Threading motor
Gear

4. T reel motor assembly removal

Remove the two screws and T reel motor assembly.

Note

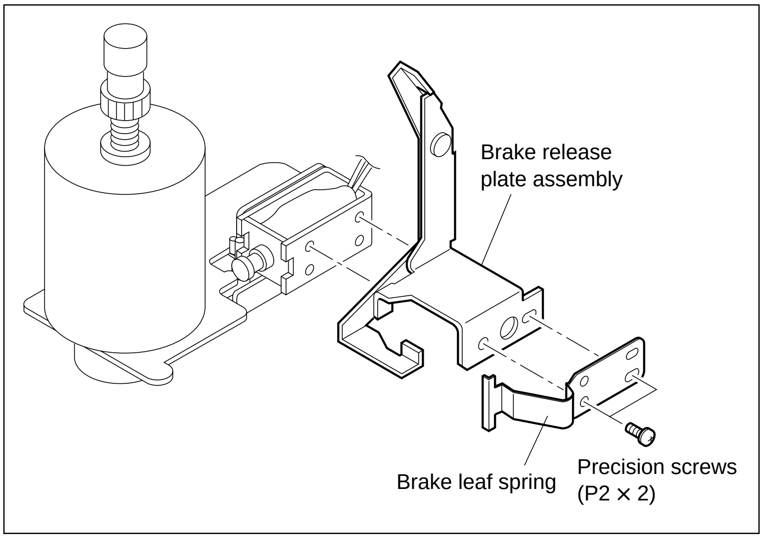
At that time, the driving belt put on the T reel motor pulley is left on the back side of the chassis.


Screw (PWH2.6 × 5)
T reel motor
Screw
(PWH2.6 × 5)

Installation

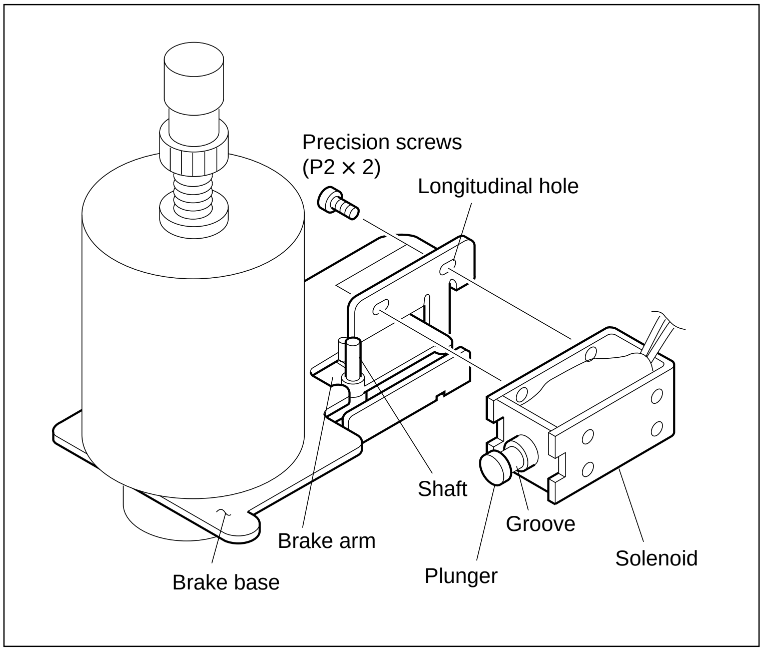
5. T reel brake solenoid replacement

(1) Remove the two precision screws shown in the figure, and then remove the brake leaf spring and brake release plate assembly.


Brake release
plate assembly
Brake leaf spring
Precision screws
(P2 × 2)

(2) Remove the two precision screws on the side of the brake base to remove the solenoid.

(3) Put the shaft of the brake arm in the groove of the iron core of a new solenoid, and then loosely tighten the two precision screws to attach the solenoid to the brake base so that each screw is positioned in the center of the longitudinal hole of the brake base.


Precision screws
(P2 × 2)
Longitudinal hole
Shaft
Groove
Brake arm
Solenoid
Plunger
Brake base

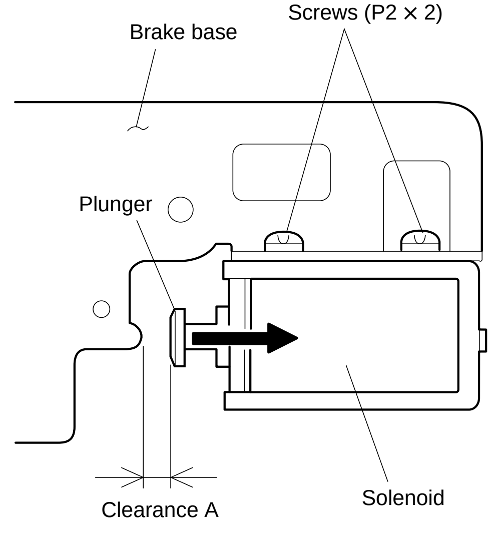
6. Solenoid position adjustment

(1) Push in the iron core of the solenoid to activate the solenoid, and slide in a thickness gauge (2.5 mm thick) between the top of the iron core and brake base (clearance A) shown in the figure.

(2) Push the solenoid toward the motor, and then retighten the two screws that have been loosely tightened on the side of the brake base.

(3) Pull out the thickness gauge.

(4) Push in the iron core of the solenoid to activate the solenoid, and then check that the clearance A between the top of the iron core and brake base meets the specification.
If not, repeat steps (1) and (2).


Screws (P2 × 2)
Brake base
Plunger
Clearance A
Solenoid

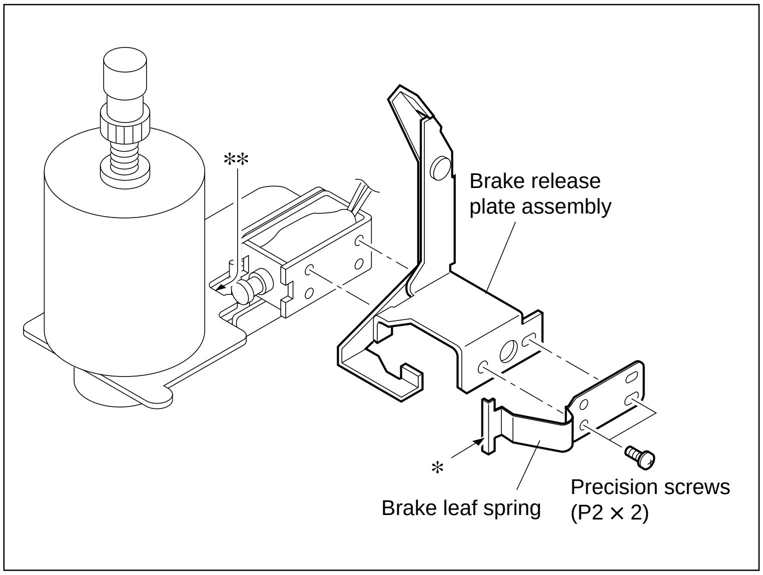
Specification : A = 2.5 ±0.2 mm

7. Brake leaf spring and brake release plate assembly installation

(1) Combine the brake leaf spring and brake release lever assembly and attach it to the solenoid using the two precision screws.

(2) Make sure that the ∗ portion of the brake leaf spring touches the ∗∗ portion of the brake base shown in the figure.

(3) Push the red-labeled portion of the brake release plate assembly toward the motor, and then check to see that the iron core of the solenoid moves in the energized direction.



8. Locking compound applying

Apply a small amount of locking compound onto the four precision screws tightened in steps “6. Solenoid position adjustment” and “7. Brake leaf spring and brake release plate assembly installation”.

9. Opening the back side of chassis

(1) Remove the bottom plate. (Refer to the Maintenance Manual Part 1, Section 1-5.)

(2) Open the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)

(3) Remove the rubber ring from the boss in the center of the chassis, and then remove the insulating plate.

(4) Remove the driving belt left in step “4. T reel motor assembly removal”.

10. Cleaning

Clean the following portions using a cleaning cloth moistened with cleaning fluid.

- T reel motor pulley
- Surface of the brake arm which touches the belt
- Midway pulley
- Driving belt

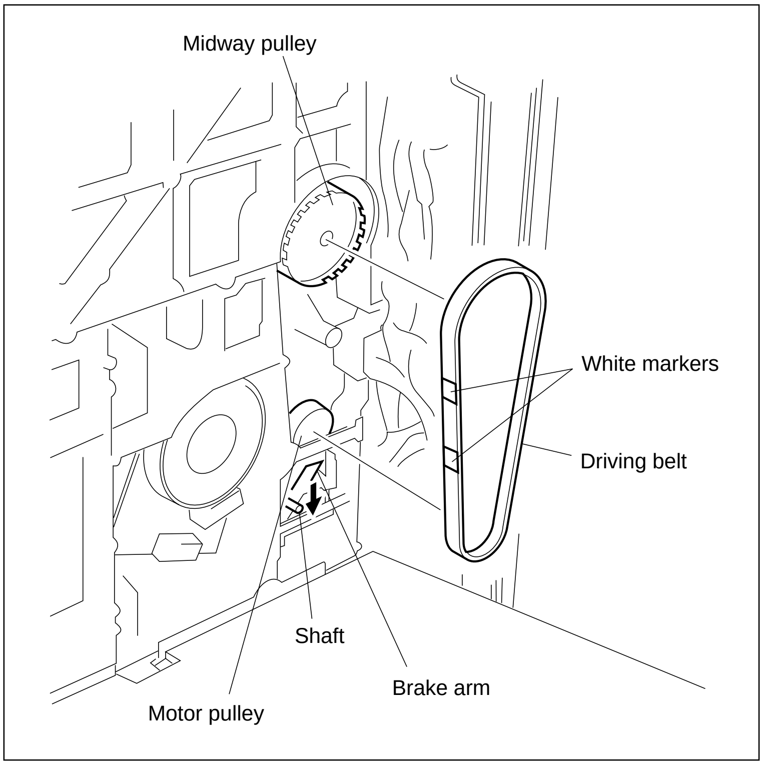
11. T reel motor assembly installation

(1) Put the driving belt (its white marker outside) around the hole, which the pulley of the T reel motor assembly can pass through, on the back side of the chassis.

(2) Attach the T reel motor assembly from the top of the chassis, and loop the driving belt over the motor pulley while pushing the shaft of the reel brake in the direction of the arrow with finger.

(3) Tighten the T reel motor assembly using the two screws.

(4) While holding the driving belt to prevent it from becoming came off from the motor pulley, slowly turn the midway pulley and loop the driving belt over the midway pulley.



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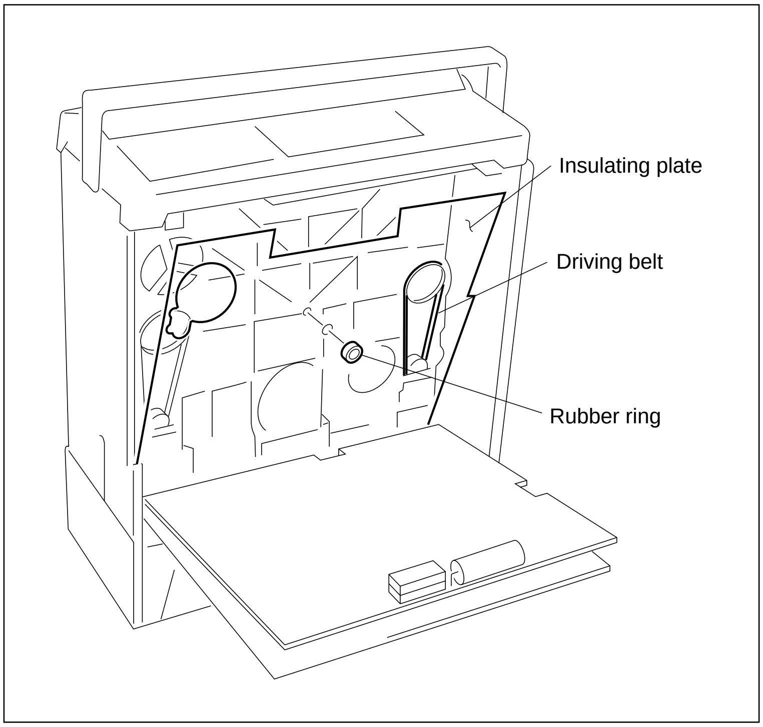
(5) Rotate the midway pulley by hand two or three turns while releasing the brake arm with finger, and check that the driving belt is put in the center of the motor pulley and midway pulley.

12. Closing the back side of chassis

(1) Attach the insulating plate while putting its hole in the boss in the center of the chassis, and then attach the rubber ring to the boss.
  - Make sure that each lever and pin are put in each hole of the insulating plate.
  - Clamp the dew sensor harness (2-conductor) with the U-shaped notch of the insulation plate so that the dew sensor harness (2-conductor) must be caught by the midway pulley.

(2) Attach the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)

(3) Attach the bottom plate. (Refer to the Maintenance Manual Part 1, Section 1-5.)



13. Pinch solenoid assembly installation

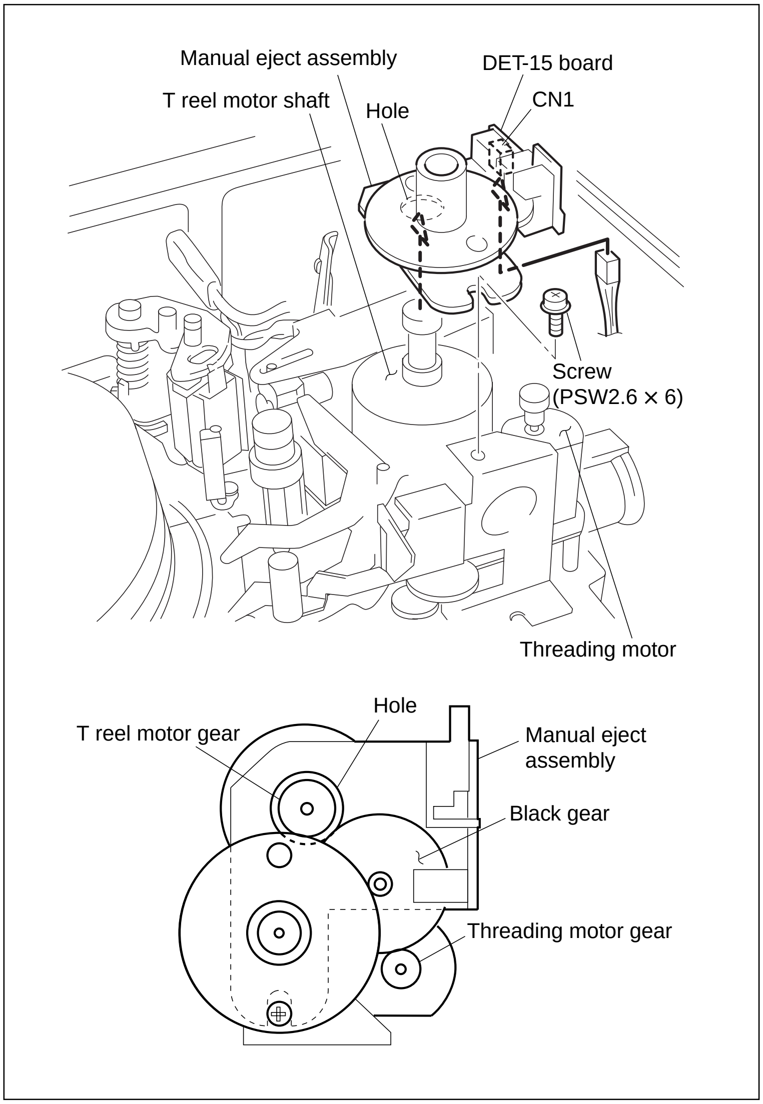
Attach the pinch solenoid assembly.
(Refer to Section “2-10. Pinch Solenoid Assembly Replacement”.)

14. Manual eject assembly installation

(1) Connect the harness connector to CN1 on the DET-15 board of the manual eject assembly.

(2) Pass the T-reel motor gear through the hole of the manual eject assembly. Then engage the black gear of the manual eject assembly with the threading motor gear as shown.

(3) Attach the manual eject assembly to the chassis using one screw.


Manual eject assembly
DET-15 board
T reel motor shaft
Hole
CN1
Screw
(PSW2.6 × 6)
Threading motor
Hole
T reel motor gear
Manual eject
assembly
Black gear
Threading motor gear

15. Pinch solenoid assembly position adjustment

Adjust the position of the pinch solenoid assembly. (Refer to Section “2-10. Pinch Solenoid Assembly Replacement”.)

16. Connection of connectors

Connect the harness connectors to the following connectors on the MB-825 board.

- CN942 : Harness connector of T brake solenoid
- CN943 : Harness connector of T reel motor
- CN946 : Harness connector of gear block assembly
- CN947 : Harness connector of CUE/TC head
- CN949 : Harness connector of CUE/TC erase head
- CN953 : Harness connector of pinch solenoid

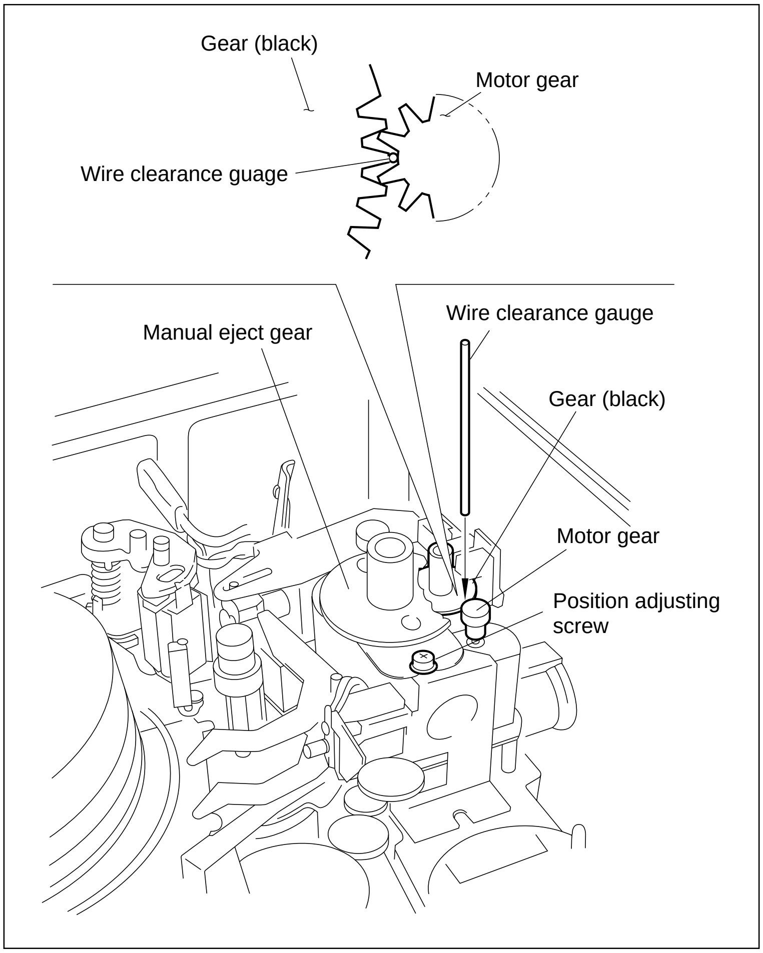
17. Manual eject assembly position adjustment

(1) Insert a screwdriver into the hole of the manual eject gear, and then loosen the screw shown in the figure.

(2) Put a wire clearance gauge of 0.3 mm in diameter between the gear (black) and motor gear as shown in the figure, and then push the manual eject gear toward the motor gear.

(3) Tighten the position adjusting screw through the hole of the manual eject gear while maintaining the state in step (2).
The position of the manual eject assembly is then adjusted.

(4) Pull out the wire clearance gauge.


Gear (black)
Motor gear
Wire clearance guage
Manual eject gear
Wire clearance gauge
Gear (black)
Motor gear
Position adjusting screw

Adjustment after Replacement

18. T-side running check

(Refer to Section 3-2-16.)

2-14. Video Head Cleaner Solenoid Replacement

Overview

Video head cleaner assembly removal
Cleaner solenoid replacement
Video head cleaner assembly installation
Video head cleaner assembly position adjustment
Operation check

Caution

When replacing the video head cleaner solenoid, be careful not to damage the CTL head, drum assembly, and peripheral tape guides.
Especially, be careful not to damage the video heads of the drum assembly during replacement.

Preparation

1. Put the unit in the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Removal

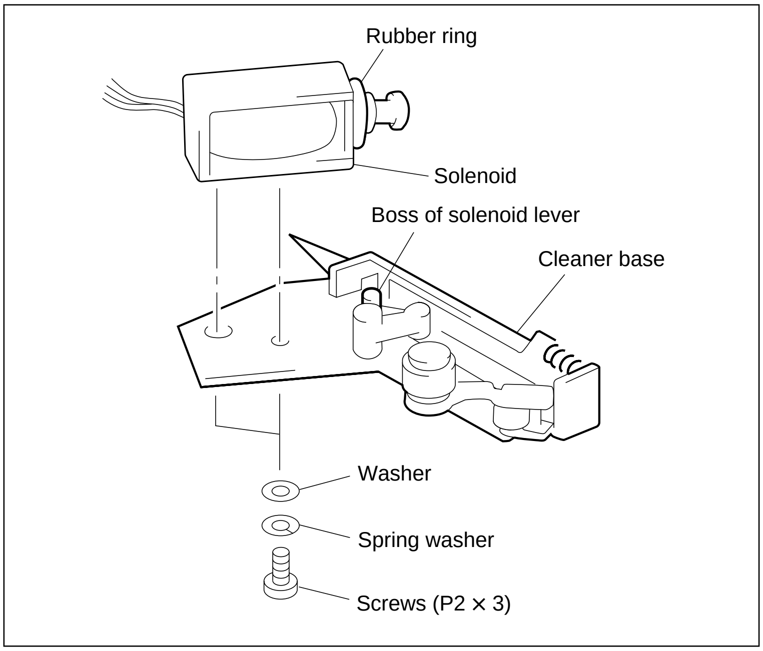
1. Video head cleaner assembly removal

Remove the video head cleaner assembly. (Refer to Section “2-8. AHC Roller Assembly Replacement”.)

Installation

2. Cleaner solenoid replacement

(1) Remove the two screws at the back of the video head cleaner assembly, the spring washer and the washer, and then remove the solenoid.
(2) Remove the rubber ring shown in the figure, and attach it to a new solenoid.
(3) Attach the new solenoid to the cleaner base in the direction shown in the figure using the two screws.
Be sure to put the groove of the iron core of the solenoid in the boss of the solenoid lever.



3. Video head cleaner assembly installation

Attach the video head cleaner assembly.
(Refer to Section “2-8. AHC Roller Assembly Replacement”.)

4. Video head cleaner assembly position adjustment

Adjust the position of the video head cleaner assembly. (Refer to Section “2-8. AHC Roller Assembly Replacement”.)

5. Operation check

Check that the video head cleaner operates properly. (Refer to Section “2-8. AHC Roller Assembly Replacement”.)

2-15. Capstan Motor Replacement

Overview

Replacement

Mode setting
Opening the back side of chassis
Capstan motor removal
Capstan motor installation
Closing the back side of chassis
Cleaning

Adjustment after replacement

T-side running check (Refer to Section 3-2-16.)
Capstan FG duty adjustment (Refer to Section 5-3-3.)
Capstan free speed adjustment (Refer to Section 5-3-4.)

Preparations

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section 1-6.)
5. Remove the bottom plate.
   (Refer to the Maintenance Manual Part 1, Section 1-5.)

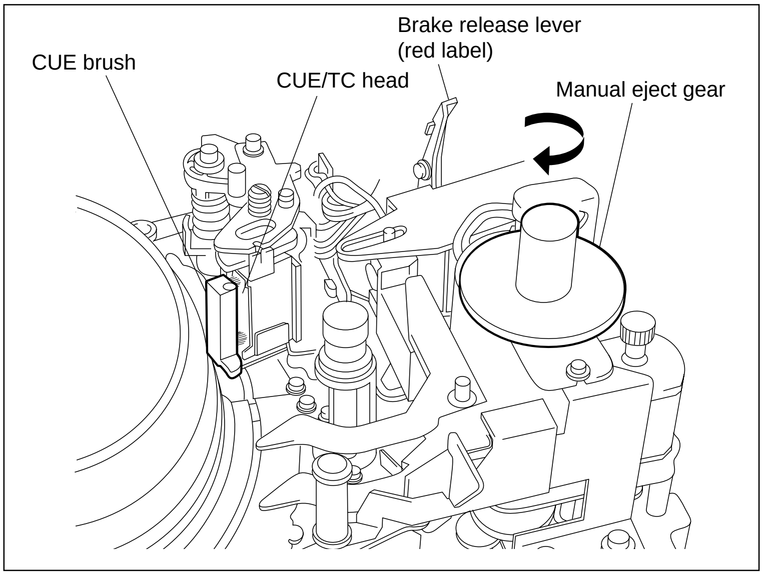
Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

Removal

1. Mode setting

While pulling the brake release lever, turn the manual eject gear clockwise while pushing it downward until the CUE brush touches the CUE/TC head.



2. Opening the back side of chassis

(1) Open the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)

(2) Remove the rubber ring attached to the boss in the center of the chassis, and then open the front panel side of the insulating plate.

3. Capstan motor removal

(1) Disconnect the harness from the connector of the capstan motor at the back of the unit.

(2) Remove the three screws from the top of the chassis while holding the capstan motor with hand, and then remove the capstan motor from the back side of the chassis.

Installation

4. Capstan motor installation

(1) Pass a new capstan motor through the hole of the chassis in the direction shown in the figure, and then tighten it with the three screws.

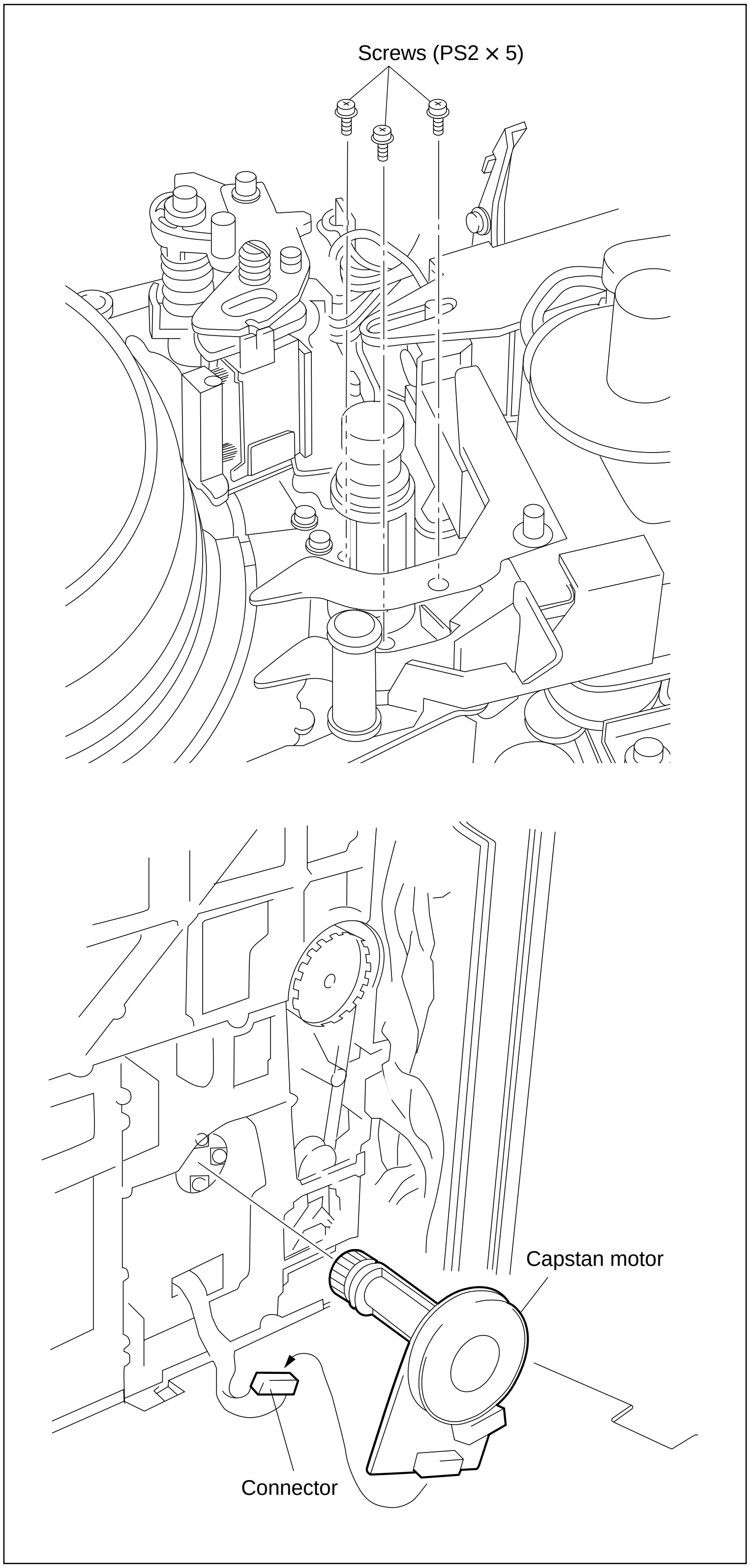
Note

When passing through the hole of the chassis, be careful not to scratch the capstan motor shaft.

(2) Connect the connector passing through the hole of the insulating plate to the capstan motor board.

Note

Do not forget to connect the connector.



5. Closing the back side of chassis

(1) Attach the insulating plate while putting its hole in the boss in the center of the chassis, and then attach the rubber ring to the boss.
  - Make sure that each lever and pin are put into each hole of the insulating plate.

(2) Attach the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)

6. Cleaning

Clean the capstan motor shaft using a cleaning cloth moistened with cleaning fluid.

Adjustment after Replacement

7. T-side running check

(Refer to Section 3-2-16.)

8. Capstan FG duty adjustment

(Refer to Section 5-3-3.)

9. Capstan free speed adjustment

(Refer to Section 5-3-4.)

2-16. CTL Head Replacement

Overview

Replacement

Entrance head assembly removal
CTL head replacement
Entrance head assembly installation
Cleaning of entrance head assembly

Adjustment after replacement

Tape path adjustment (Refer to Section 3-1-1.)

Caution

Never contact the tape cleaner next to the CTL head with bare hands.
A sharp edge on the tape cleaner may injure your finger.

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)

Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

Removal

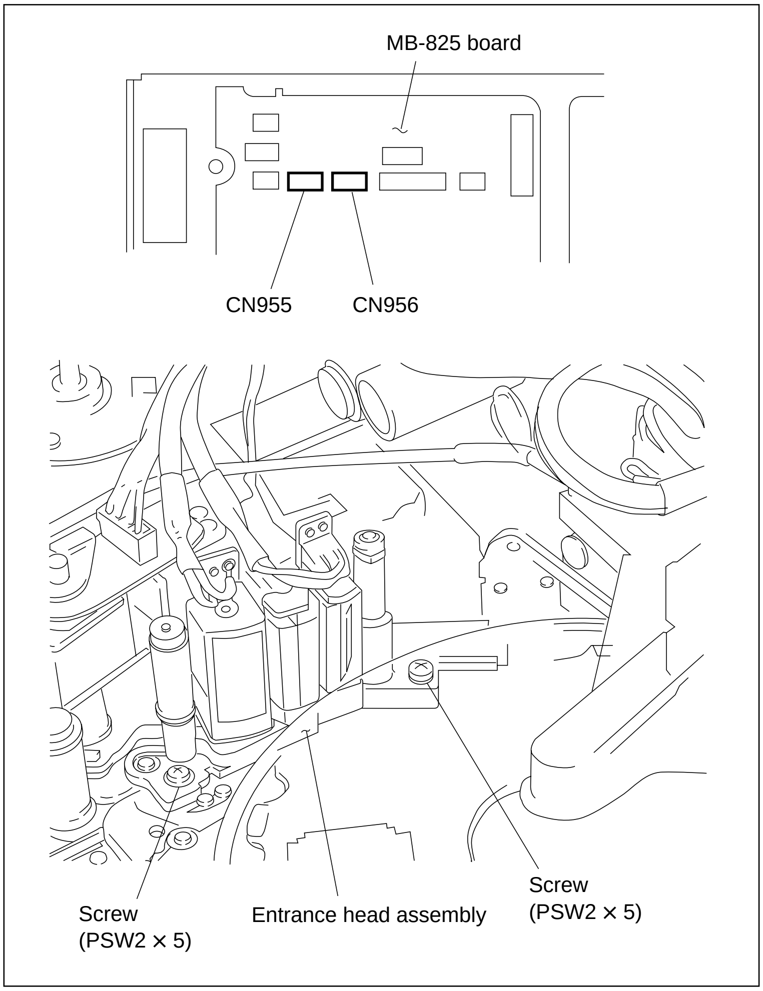
1. Entrance head assembly removal

(1) Disconnect the two connectors CN955 (CTL head) and CN956 (full erase head) on the MB-825 board.

(2) Remove the two screws and the entrance head assembly.

Note

Be careful not to damage the video head, drum, erase head, tape guide, and other peripheral parts with a screwdriver.


MB-825 board
CN955
CN956
Screw
(PSW2 × 5)
Entrance head assembly
Screw
(PSW2 × 5)

Installation

2. CTL head replacement

(1) Unsolder two leads from the printed circuit board of the CTL head assembly.

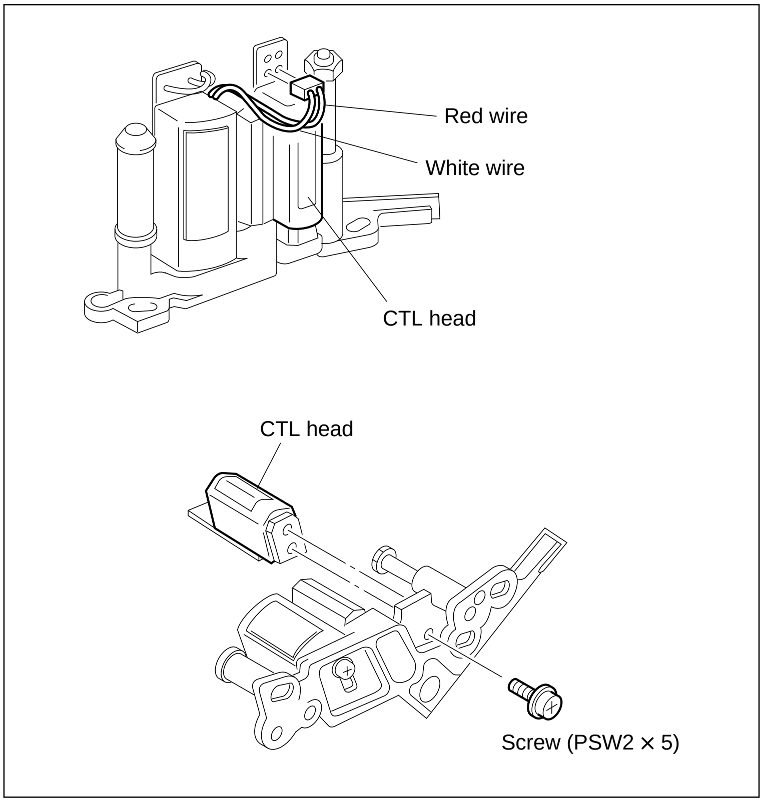
(2) Remove the screw at the back side of the entrance head assembly to remove the CTL head.

(3) Put the hole at the bottom of a new CTL head in the boss of the CTL bracket completely, and then tighten the screw.

(4) Solder the two leads that are removed in step (1) to the printed circuit board of the CTL head.

Note

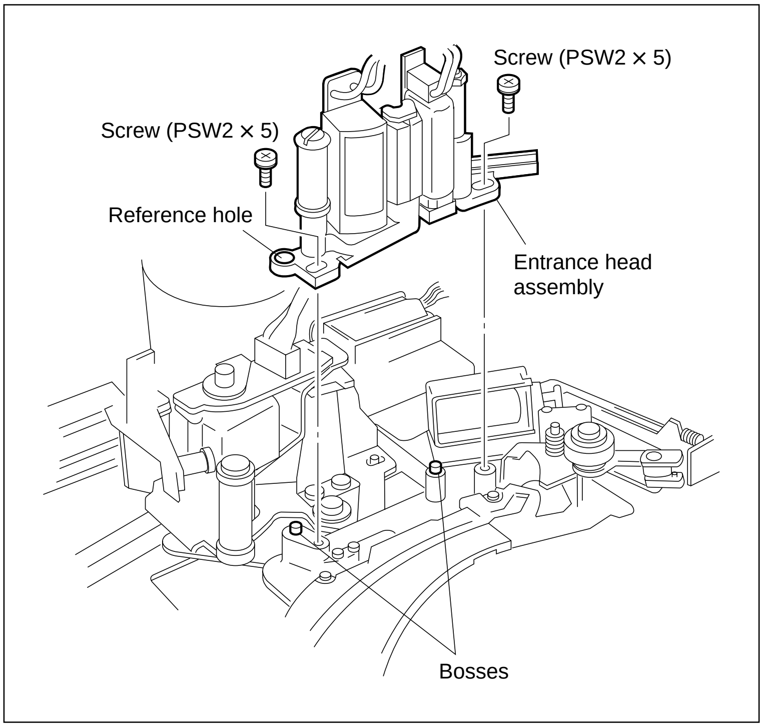
Be sure to solder each lead to the correct position. If not, it will be a serious hindrance in the compatibility of the tape.


Red wire
White wire
CTL head
CTL head
Screw (PSW2 × 5)

3. Entrance head assembly installation

(1) Put the two bosses of the chassis in the two reference holes of the entrance head assembly, and then attach them using the two screws.

(2) Connect the two harness connectors of the entrance head assembly to the connectors CN955 and CN956 on the MB-825 board.


Screw (PSW2 × 5)
Screw (PSW2 × 5)
Reference hole
Entrance head assembly
Bosses

4. Cleaning of entrance head assembly

Clean the CTL head, full erase head, tape cleaner, and tape guides using a cleaning cloth moistened with cleaning fluid.

Notes

- After cleaning, be sure to wipe the relevant area using a dry cleaning cloth.
- Never contact the tape cleaner with bare hands when cleaning the tape cleaner.

Adjustment after Replacement

5. Tape path adjustment

(Refer to Section 3-1-1.)

2-17. CUE/TC Head Replacement

Overview

Replacement

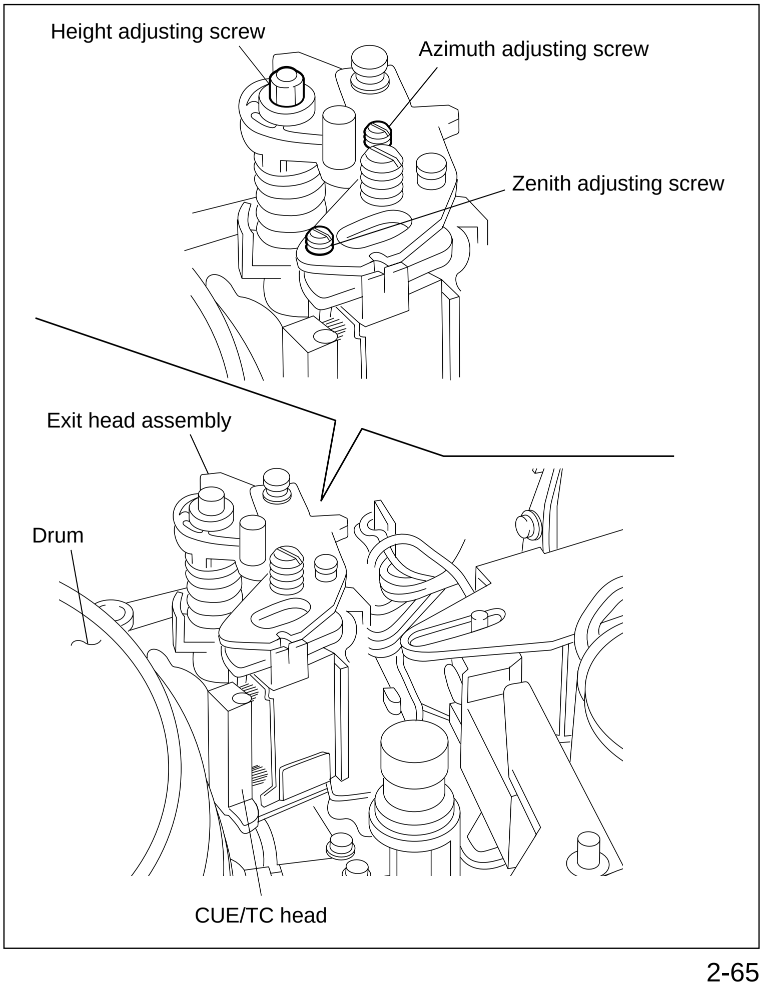
Pinch solenoid assembly removal
Opening the EQ-76 board
Disconnection of connectors
Exit head assembly removal
CUE/TC head replacement
Exit head assembly installation
Operation check
Connection of connectors
EQ-76 board attachment
Pinch solenoid assembly installation
Pinch solenoid assembly position adjustment
Cleaning of head

Adjustment after replacement

Tape path adjustment
(Refer to Section 3-1-1.)
CUE/TC ERASE current adjustment
(Refer to Section 5-4-5.)
CUE channel PB frequency characteristics adjustment
(Refer to Section 5-4-6.)
CUE bias adjustment
(Refer to Section 5-4-7.)
CUE REC level adjustment
(Refer to Section 5-4-8.)

Precaution

When replacing the CUE/TC head, never tighten or loosen the adjusting screws shown in the figure. If tightening or loosening, the azimuth and zenith of the CUE/TC head will change, and serious trouble will occur at the tape path.


Height adjusting screw
Azimuth adjusting screw
Zenith adjusting screw
Exit head assembly
Drum
CUE/TC head

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)
4. Remove the battery case.
   (Refer to the Maintenance Manual Part 1, Section 1-5.)
5. Remove the cassette compartment.
   (Refer to the Maintenance Manual Part 1, Section 1-6.)

Note

Use a harness clamp to arrange the harness of the CUE/TC head assembly and fix them securely. Prepare a new tie-wrap (3-701-991-01) before replacement.

Tools

• Torque screwdriver bit (for M1.4) :	J-6325-110-A
• Torque screwdriver bit (for M2) :	J-6325-380-A
• Torque screwdriver (for 3 kg) :	J-6325-400-A
• Cleaning cloth :	3-184-527-01
• Cleaning fluid :	9-919-573-01

Removal

1. Pinch solenoid assembly removal

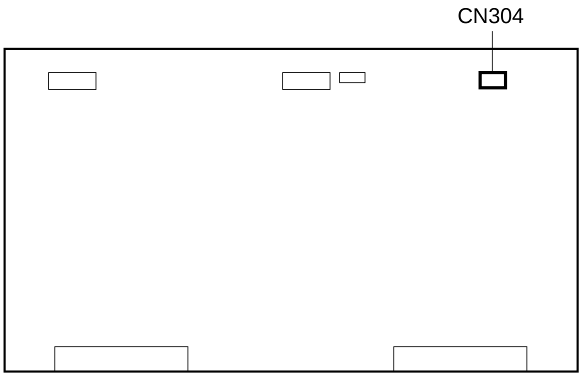
Remove the pinch solenoid assembly. (Refer to Section "2-10. Pinch Solenoid Assembly Replacement".)

2. Opening the EQ-76 board

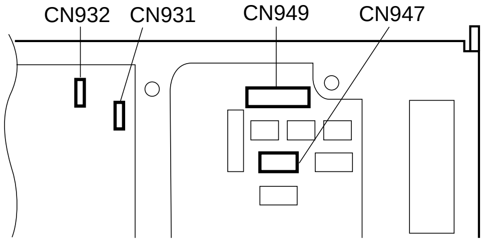
Open the EQ-76 board. (Refer to Section 4-6.)

3. Disconnection of connectors

(1) Disconnect connector CN304 (CUE head) on the EQ-76 board.
(2) Disconnect the two connectors CN947 (TC head) and CN949 (TC/CUE erase head) on the MB-825 board.
(3) Disconnect the two ground plugs CN931 and CN932 on the MB-825 board.



(EQ-76 board)



(Right part of MB-825 board)

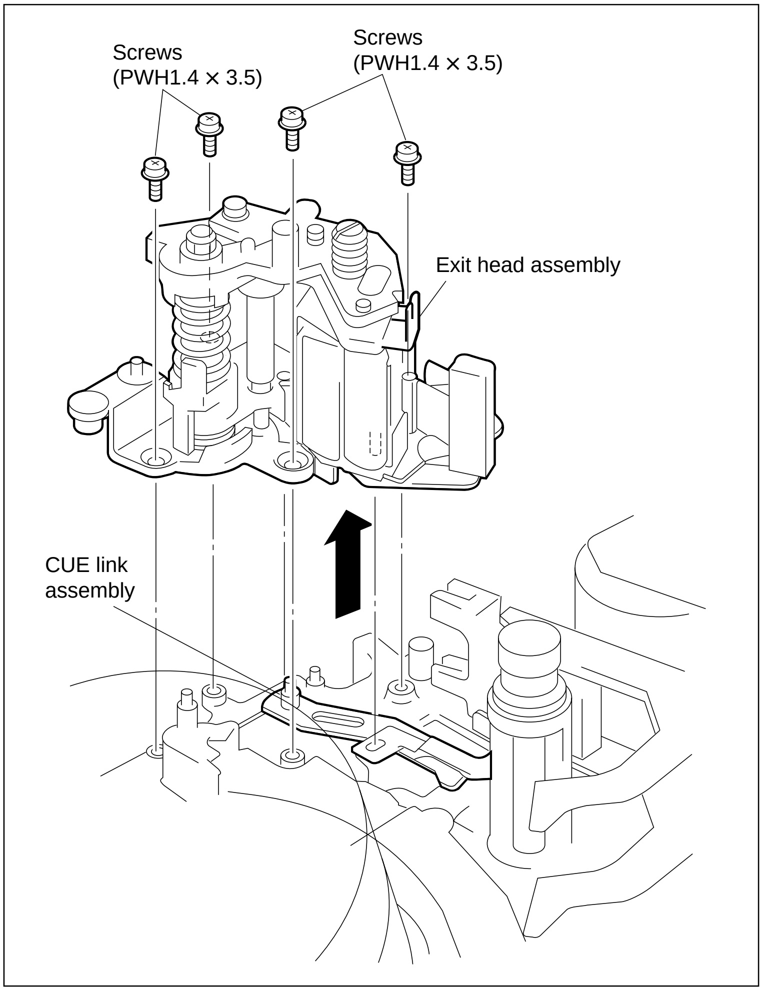
4. Exit head assembly removal

(1) With the brake release lever is pulled, turn the manual eject gear counterclockwise while pressing it downward to put the unit into the unthreading end mode.

(2) Remove the four screws shown in the figure, and then remove the exit head assembly from the unit.

Note

Take care not to scratch the drum and other parts with a screwdriver or others.


Screws
(PWH1.4 × 3.5)
Screws
(PWH1.4 × 3.5)
Exit head assembly
CUE link
assembly

Installation

5. CUE/TC head replacement

(1) Remove one screw and the harness clamp.

(2) Remove the two screws at the top of the CUE/TC head to remove the CUE/TC head. In this way, the shielding case and adjustment plate will be removed.

Note

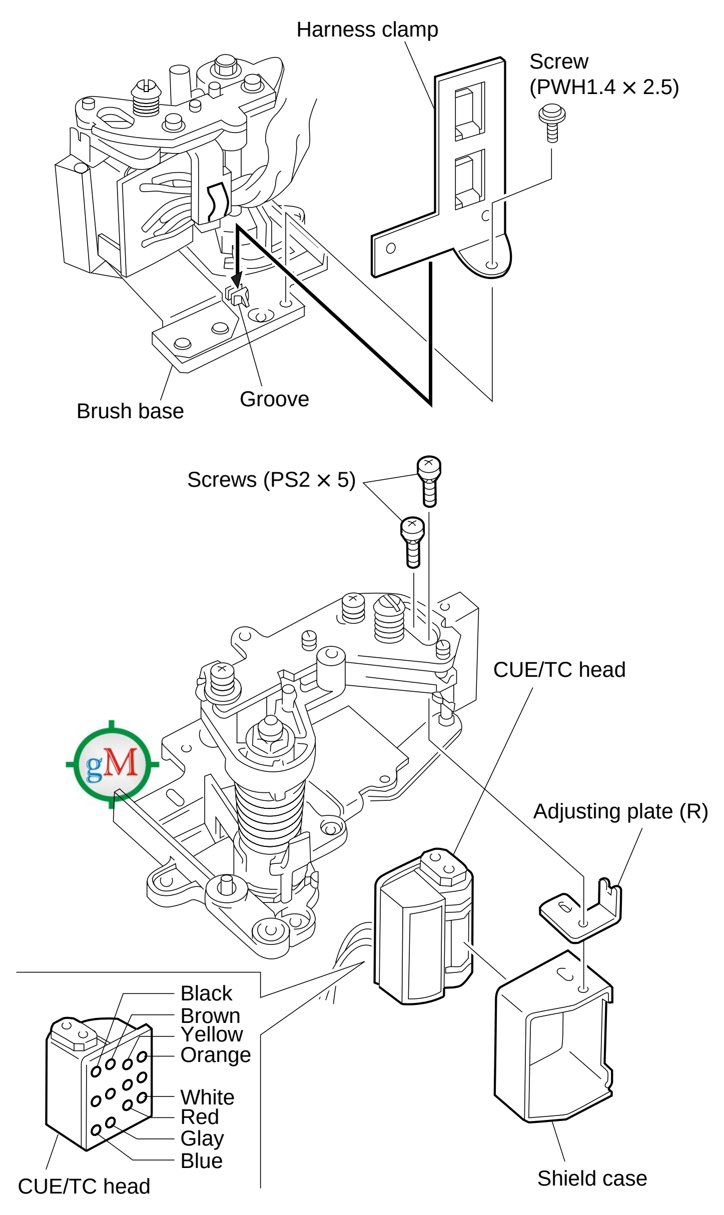
Never loosen or tighten the other screws except the screws shown in the figure.

(3) Unsolder the eight leads on the printed circuit board of the CUE/TC head, and then solder them to a new head.

Note

Be sure to solder each lead to the correct position as shown in the figure.

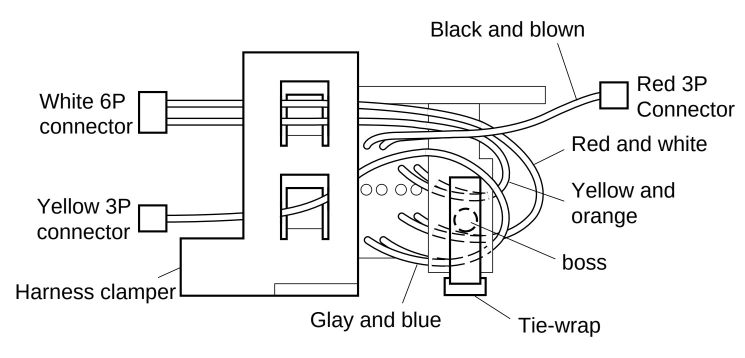
(4) After putting the CUE/TC head in the shielding case, assemble the parts in the sequence shown in the figure and secure it with the two screws.


Harness clamp
Screw
(PWH1.4 × 2.5)
Brush base
Groove
Screws (PS2 × 5)
CUE/TC head
Adjusting plate (R)
Black
Brown
Yellow
Orange
White
Red
Glay
Blue
CUE/TC head
Shield case

(5) Arrange the leads and fix them using a tie-wrap (3-701-991-01).

(6) Put the bottom of the harness clamper into the groove of the base shown in the figure and attach it using one screw.

(7) Put the harness through the harness holder as shown in the figure.


Black and blown
White 6P
connector
Red 3P
Connector
Red and white
Yellow 3P
connector
Yellow and
orange
boss
Harness clamper
Glay and blue
Tie-wrap

6. Exit head assembly installation

Note

Make sure to set the unit to the unthreading end mode.

(1) Move the CUE brush of the exit head assembly to the position next to the CUE/TC head.

Note

The next step can be performed easily by performing above step.

(2) Align the hole and pins of the exit head assembly with the pin and holes on the chassis.

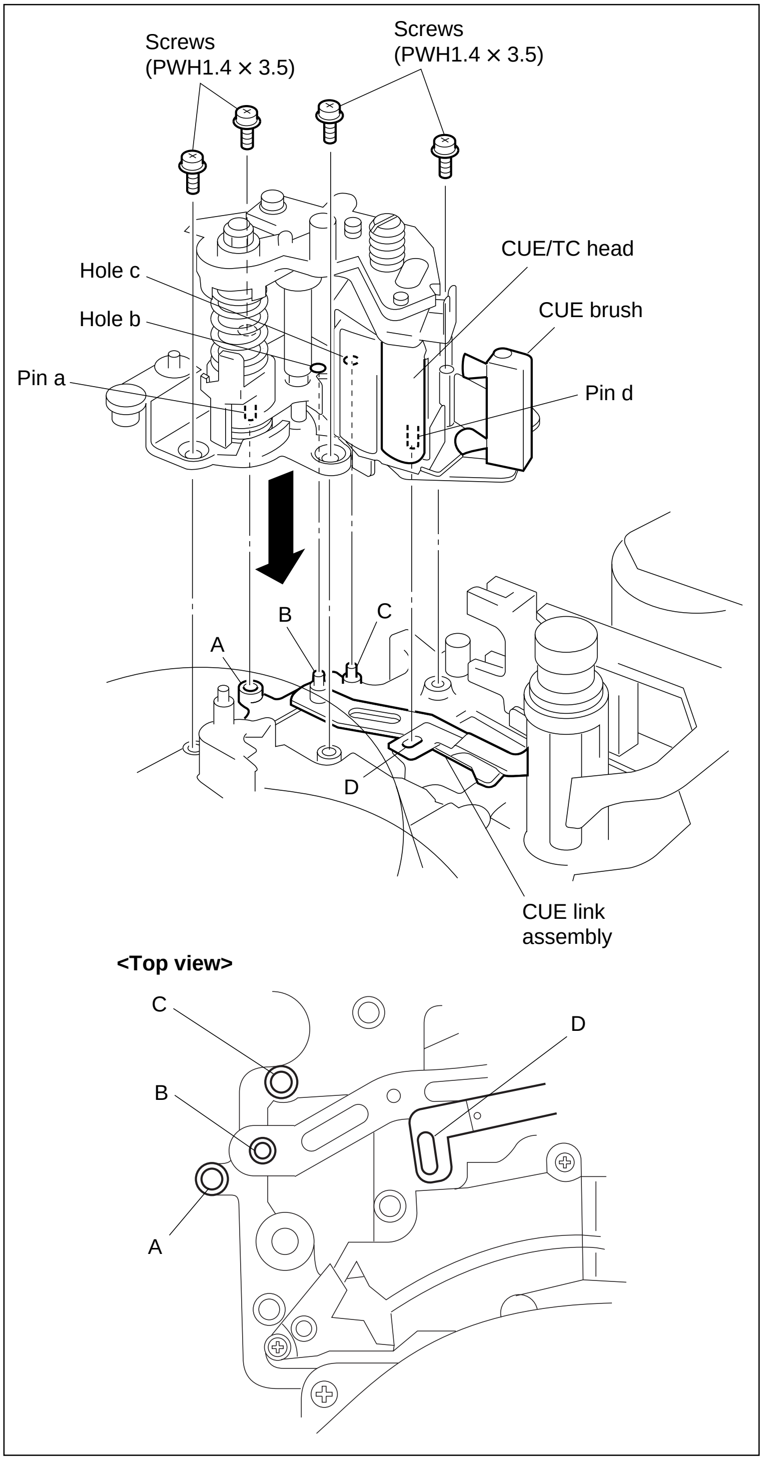
Note

Turn the manual eject gear slightly clockwise only when the hole and pin are difficult to be installed.

(3) Attach the exit head assembly using the four screws.

Note

Be careful not to damage the drum when attaching the exit head assembly.



7. Operation check

Turn the manual eject gear clockwise, and then check to see that the CUE brush, CUE/TC head, and pinch lever operate smoothly.

8. Connection of connectors

Connect the harness connectors to the following connectors on the MB-825 board.

- CN931 : Ground plug
- CN932 : Ground plug
- CN947 : Harness connector of CUE/TC head
- CN949 : Harness connector of CUE/TC erase head

Connect a harness connector to the following connector on the EQ-76 board.

- CN304 : Harness connector of CUE head

9. EQ-76 board attachment

Close and attach the EQ-76 board.
(Refer to Section 4-6.)

10. Pinch solenoid assembly installation

Attach the pinch solenoid assembly. (Refer to Section “2-10. Pinch Solenoid Assembly Replacement”.)

11. Pinch solenoid assembly position adjustment

Adjust the position of the pinch solenoid assembly. (Refer to Section “2-10. Pinch Solenoid Assembly Replacement”.)

12. Cleaning of head

Clean the CUE/TC head using a cleaning cloth moistened with cleaning fluid.

Note

After cleaning, be sure to wipe the CUE/TC head using a dry cleaning cloth.

Adjustment after Replacement

13. Tape path adjustment

(Refer to Section 3-1-1.)

14. CUE/TC ERASE current adjustment

(Refer to Section 5-4-5.)

15. CUE channel PB frequency characteristics adjustment

(Refer to Section 5-4-6.)

16. CUE bias adjustment

(Refer to Section 5-4-7.)

17. CUE REC level adjustment

(Refer to Section 5-4-8.)

2-18. Threading Motor Replacement

Overview

Manual eject assembly removal
Lid opener assembly removal
Gear block assembly removal
Threading motor replacement
Gear block assembly installation
Lid opener assembly installation
Manual eject assembly installation
Manual eject assembly position adjustment
Operation check

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section 1-6.)

Note

Two types of pinion gears are press-fitted in the threading motor shaft to be replaced. When replacing the motor, prepare new pinion gears (3-679-748-01 and 3-680-988-01). (Never reuse the two pinion gears.)

Tools

• Torque screwdriver bit (for M2) :	J-6325-380-A
• Torque screwdriver (for 3 kg) :	J-6325-400-A
• Wire clearance gauge :	J-6152-450-A

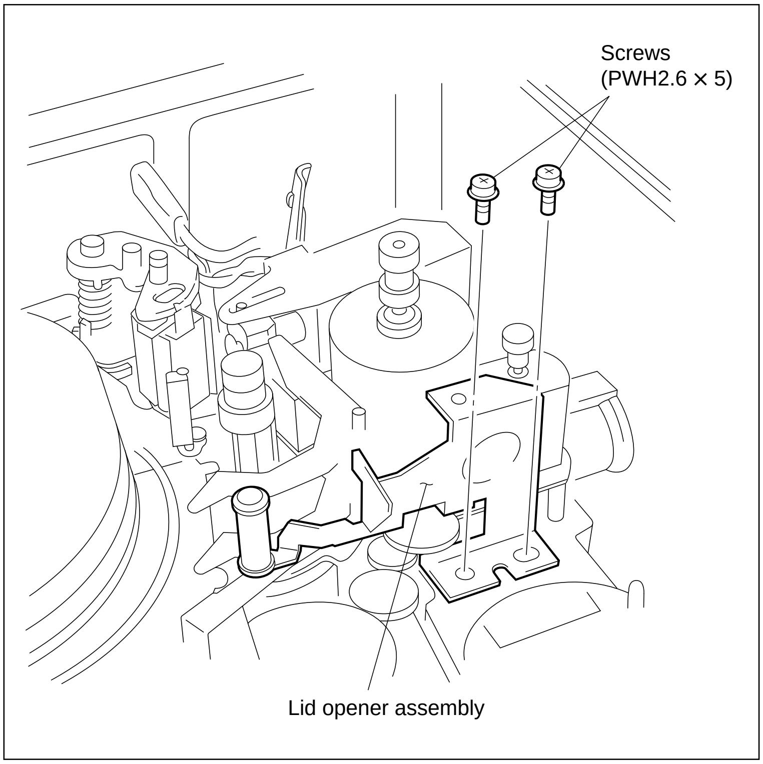
Removal

1. Manual eject assembly removal

Remove the manual eject assembly. (Refer to Section “2-13. T Reel Brake Solenoid Replacement”.)

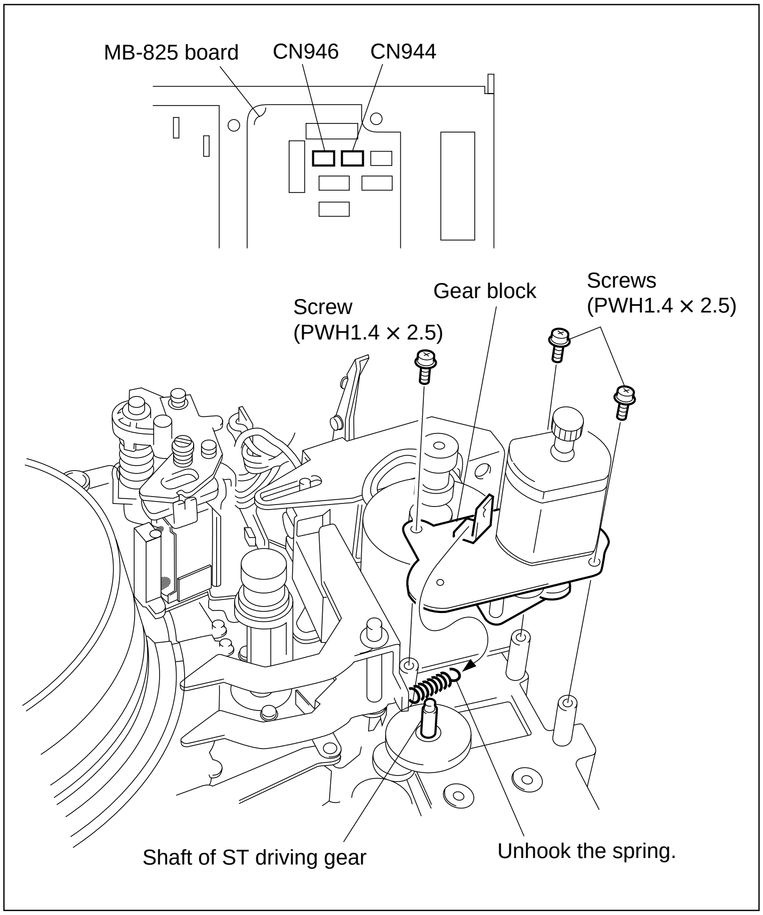
2. Lid opener assembly removal

(1) Disconnect the connector CN944 on the MB-825 board.
(2) Remove the two screws and the lid opener assembly.


Screws
(PWH2.6 × 5)
Lid opener assembly

3. Gear block assembly removal

(1) Disconnect the connector CN946 (threading motor) on the MB-825 board.
(2) Unhook the spring from the top of the gear block assembly.
(The other hook of the spring remains to the pinch lever.)
(3) Remove the three screws to remove the gear block assembly.


MB-825 board
CN946
CN944
Screw
(PWH1.4 × 2.5)
Gear block
Screws
(PWH1.4 × 2.5)
Shaft of ST driving gear
Unhook the spring.

http://getMANUAL.com

Installation

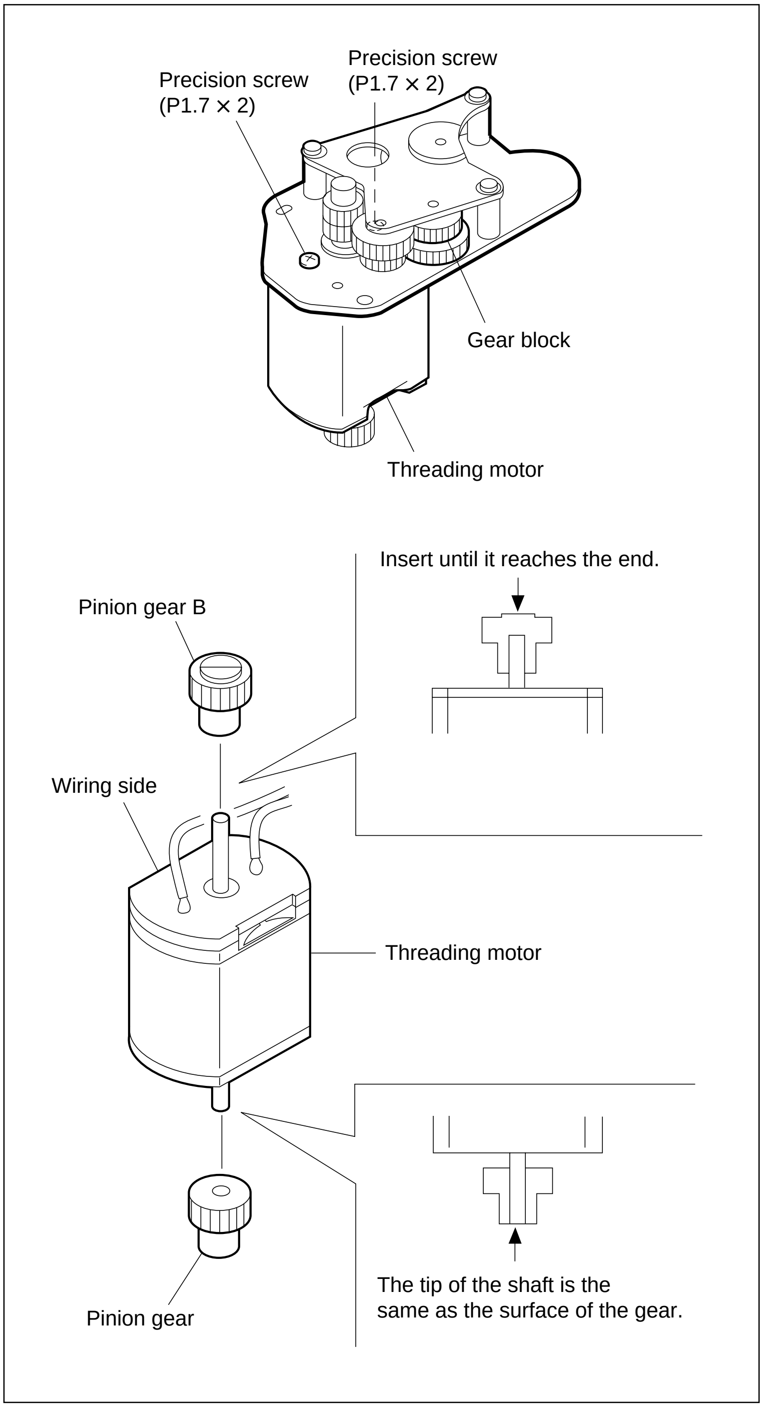
4. Threading motor replacement

(1) Remove the two precision screws to remove the threading motor from the gear block assembly.

(2) Press the two new pinion gears in the shaft of a new threading motor.

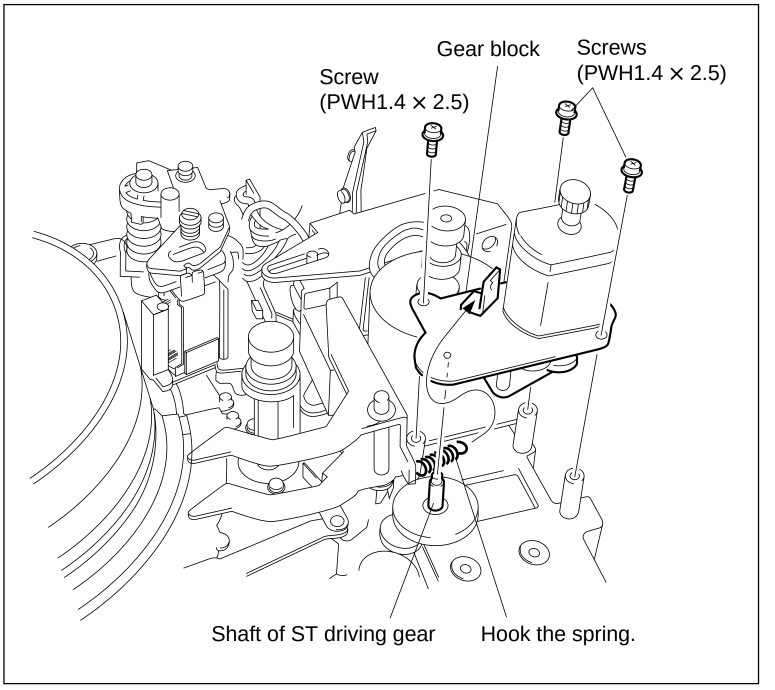
- Press and attach a new pinion gear B (3-680-988-01) to the shaft on the wiring side until tip of the shaft reaches the end of the hole of the pinion gear.
- Press and attach a new pinion gear (3-679-748-01) in the other side of the shaft so that the tip of the shaft is the same as the surface of the pinion gear.

(3) Attach the threading motor to the gear block assembly using the two precision screws.


Precision screw
(P1.7 × 2)
Precision screw
(P1.7 × 2)
Gear block
Threading motor
Insert until it reaches the end.
Pinion gear B
Wiring side
Threading motor
Pinion gear
The tip of the shaft is the same as the surface of the gear.

5. Gear block assembly installation

(1) Place a new gear block assembly on the chassis while inserting the tip of the ST driving gear shaft of the chassis into the hole of the gear block assembly.
(2) Attach the gear block assembly using the three screws.
(3) Put the spring removed in step (2) of "3. Gear block assembly removal" on the hook of the gear block assembly.
(4) Connect the harness connector of the gear block assembly to connector CN946 on the MB-825 board.



6. Lid opener assembly installation

(1) Attach the lid opener assembly using the two screws.
(2) Connect the harness connector of the lid opener assembly to connector CN944 on the MB-825 board.

7. Manual eject assembly installation

Attach the manual eject assembly. (Refer to Section "2-13. T Reel Brake Solenoid Replacement".)

8. Manual eject assembly position adjustment

Adjust the position of the manual eject assembly. (Refer to Section "2-13. T Reel Brake Solenoid Replacement".)

9. Operation check

While pulling the brake release lever, turn the manual eject gear clockwise and counterclockwise while pressing it downward, and then check to see that the CUE cleaner and S and T sliders smoothly operate.

2-19. Battery Replacement

Battery replacement resets the customer-setting data in the setup menu to the factory-setting value.
After replacing the battery, set the data again according to the customer requirements. (Refer to the Maintenance Manual Part 1, Section “3-1. Setup Menu”.)

Overview

Opening the back side of chassis
Battery replacement
Closing the back side of chassis

Preparation

(1) Put the unit into the unthreading end mode.
(2) Turn off the power.
(3) Remove the bottom plate.
(Refer to the Maintenance Manual Part 1, Section 1-5.)

Removal

1. Opening the back side of chassis

(1) Disconnect all the harness connectors on the VPR-53 board.
(2) Open the VPR-53 board. (Refer to Section 4-2.)
(3) Disconnect all the harness connectors on the SST-13 board.
(4) Open the SST-13 board. (Refer to Section 4-3.)

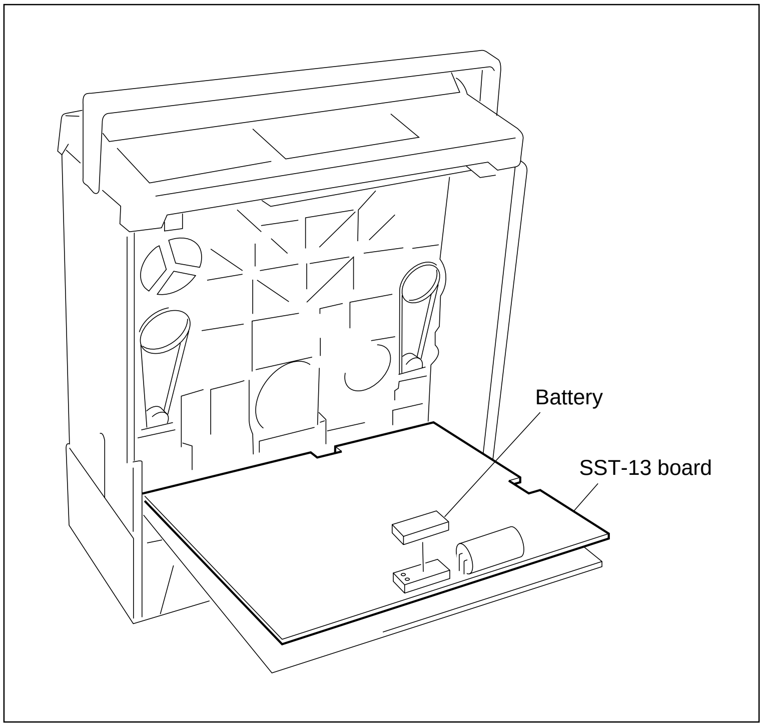
Installation

2. Battery replacement

(1) Cut and remove the fastener fixing the battery on the SST-13 board using a pair of nippers.
(2) Remove the battery from the SST-13 board.
(3) Insert a new battery onto the SST-13 board.
(4) Fix the battery to the SST-13 board with a new fastener.

Note

Never protrude a knot from the outside of the board.



3. Closing the back side of chassis

(1) Close the SST-13 board. (Refer to Section 4-3.)
(2) Connect the harness connectors disconnected in step “1. Opening the back side of chassis” to the SST-13 board.
(3) Connect the harness connectors disconnected in step “1. Opening the back side of chassis” to the VPR-53 board.
(4) Attach the VPR-53 board. (Refer to Section 4-2.)

2-20. Cassette Compartment Harness Replacement

Overview

Replacement

Disconnection of connector on CS-25 board
Disconnection of connector on CS-26 board
Connection of harness
CS-25 board installation

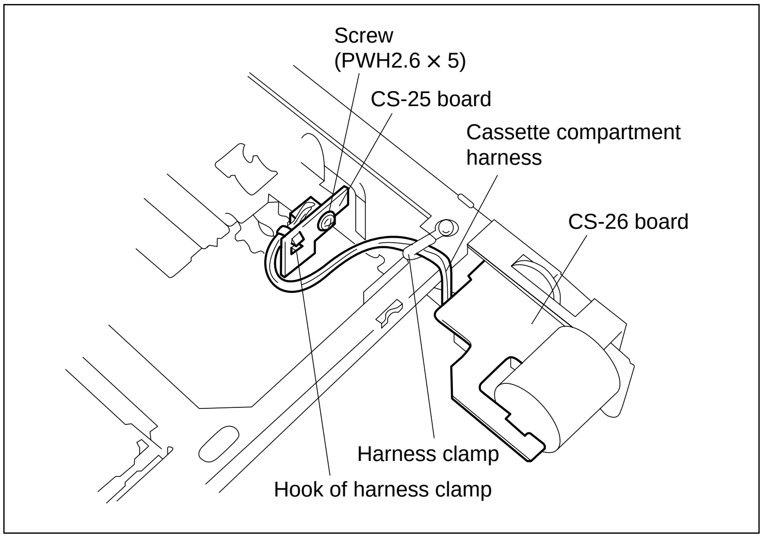
Preparation

1. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section 1-5.)
2. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section 1-6.)

Removal

1. Disconnection of connector on CS-25 board

(1) Remove one screw to remove the CS-25 board from the cassette compartment.
(2) Clutch the hook of the harness clamp using a pair of pliers and remove it from the board.
(3) Disconnect the harness from the connector on the CS-25 board.


Screw
(PWH2.6 × 5)
CS-25 board
Cassette compartment harness
CS-26 board
Harness clamp
Hook of harness clamp

2. Disconnection of connector on CS-26 board

(1) Unfold the harness clamp shown in the figure to unfasten the harness.
(2) Disconnect the harness from the connector on the CS-26 board.

Installation

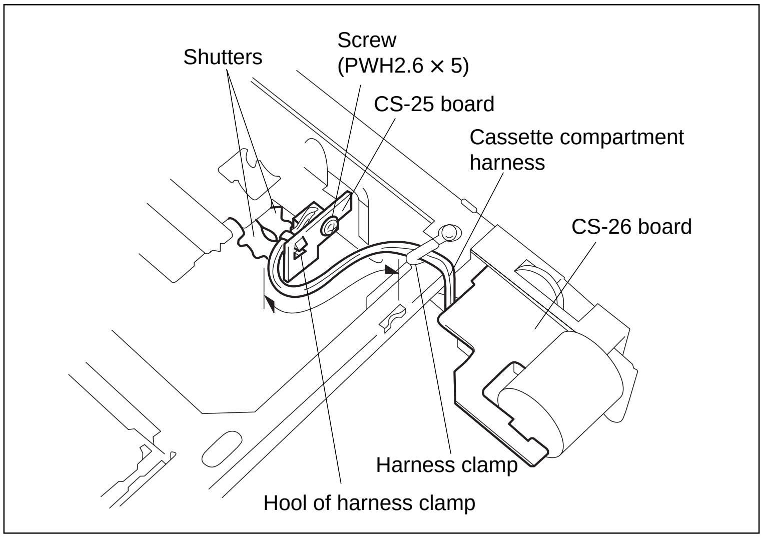
3. Connection of harness

(1) Connect a new harness to the connector on the CS-26 board.

(2) Route the harness over the plate, and then fasten the harness securely using the harness clamp while pulling it gently.

(3) Connect the harness connector to the connector on the CS-25 board.

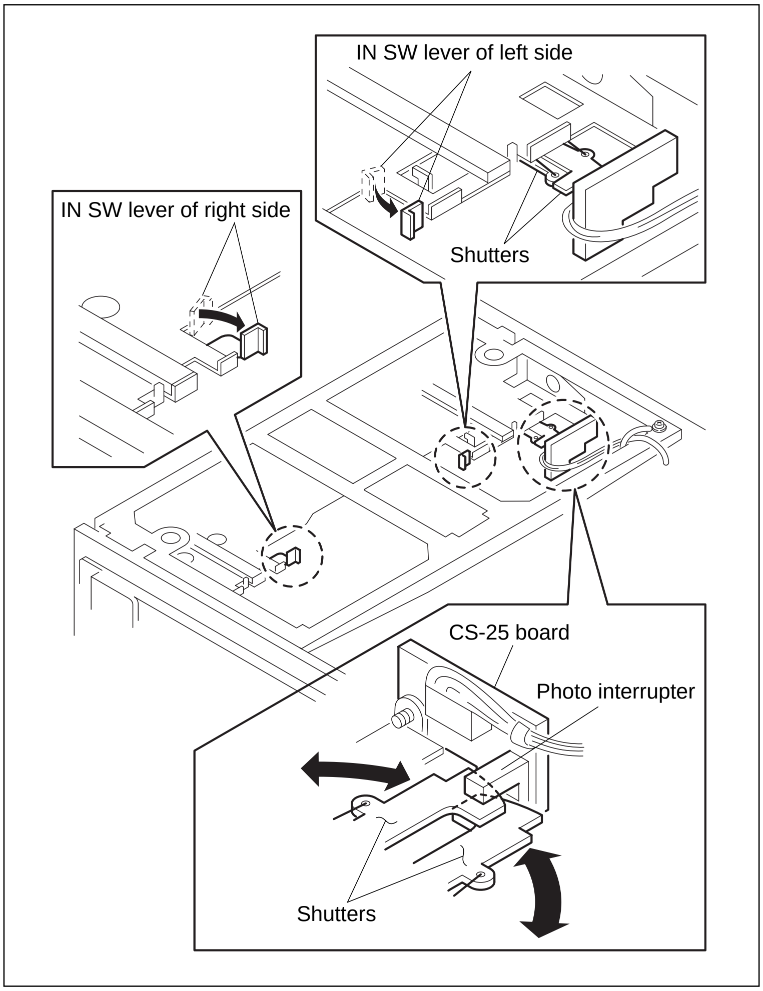
(4) Slack the harness a little, and then fix the harness securely to the CS-25 board using the harness clamp removed in "Removal".


Shutters
Screw
(PWH2.6 × 5)
CS-25 board
Cassette compartment harness
CS-26 board
Harness clamp
Hool of harness clamp

4. CS-25 board installation

(1) Attach the CS-25 board on the cassette compartment using the screw.

(2) Move each IN SW lever at the right and left sides, and then check to see that the shutter moves smoothly without contacting the photo interrupter. Release the lever, and then check to see that the shutter returns to the original position by the tension of the spring.


IN SW lever of left side
Shutters
IN SW lever of right side
CS-25 board
Photo interrupter
Shutters

2-21. S Reel Motor Assembly Replacement

Overview

Replacement

Connector disconnection
S reel motor assembly removal
S reel motor replacement
Opening the back side of the chassis
S reel motor assembly installation
Driving belt installation
Closing the back side of the chassis
Connection of connectors

Adjustment after replacement

S reel motor operation check (Refer to the Maintenance Manual Part 1, Section 3-2.)

Preparation

1. Put the unit into the unthreading end state.
2. Turn the power off.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section “1-6. Removing and Reinstalling the Cassette Compartment”.)

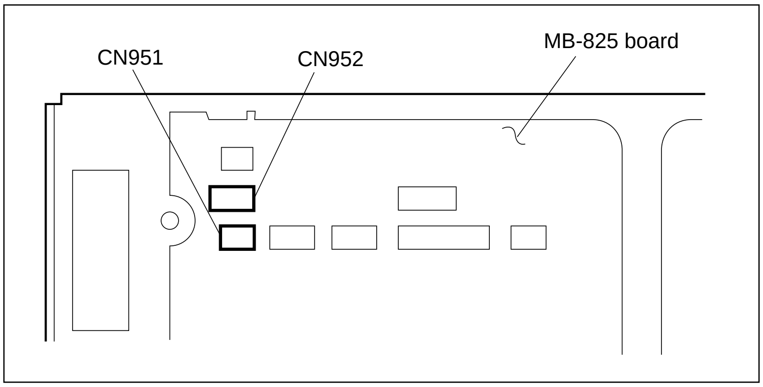
Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- L wrench (d = 1.5 mm) : 7-700-736-05
- Thickness gauge : 9-911-053-00

Removal

1. Connector disconnection

Disconnect the two connectors (CN951 (S reel motor) and CN952 (S brake solenoid)) on the MB-825 board.

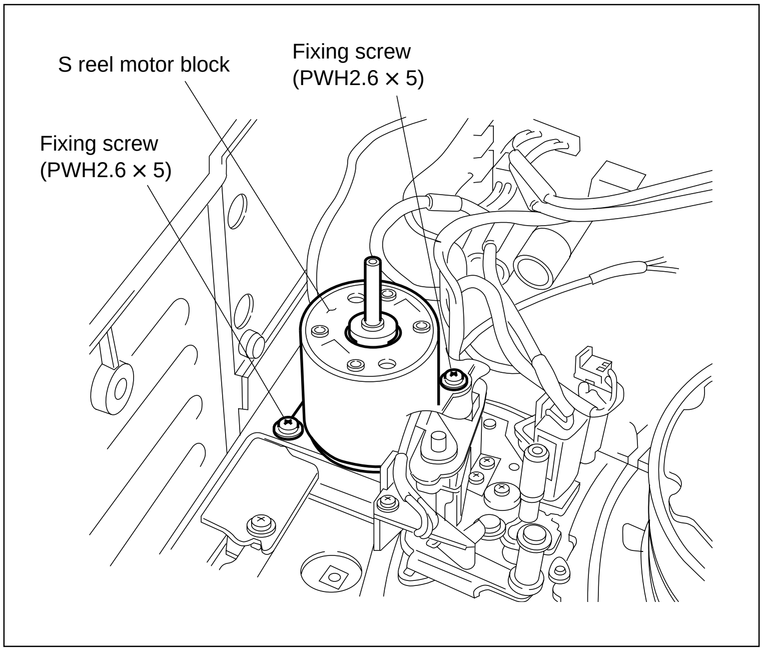


2. S reel motor assembly removal

Remove the two fixing screws to remove the S reel motor assembly.

Note

At that time, the driving belt at the back of the chassis is removed together from the motor pulley.


S reel motor block
Fixing screw
(PWH2.6 × 5)
Fixing screw
(PWH2.6 × 5)

Installation

3. S reel motor assembly replacement

(1) Loosen one setscrew, and then remove the motor pulley.

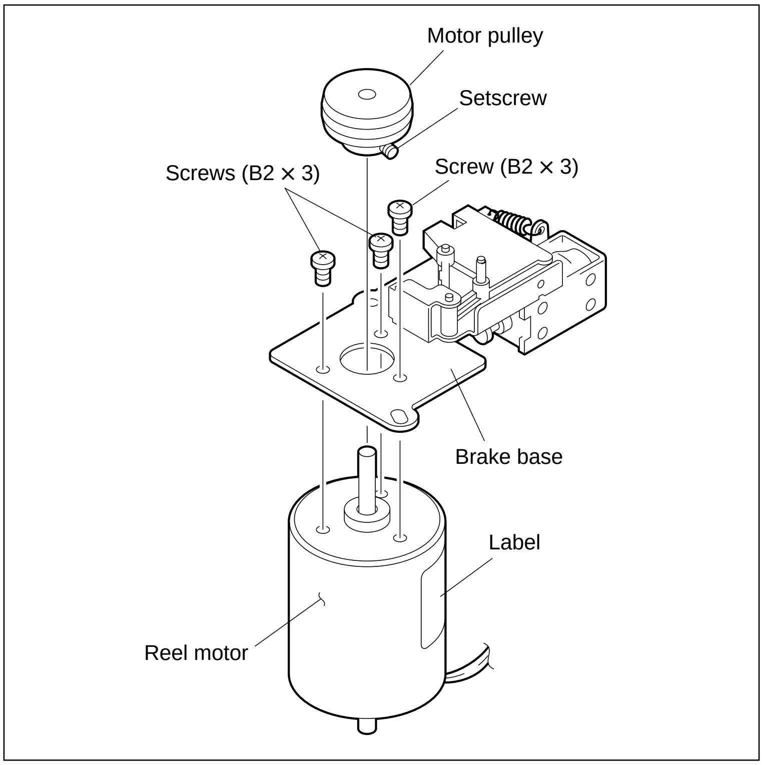
(2) Remove the three screws, and then remove the S reel motor from the brake base.

(3) Attach a new reel motor to the brake base with the three screws.

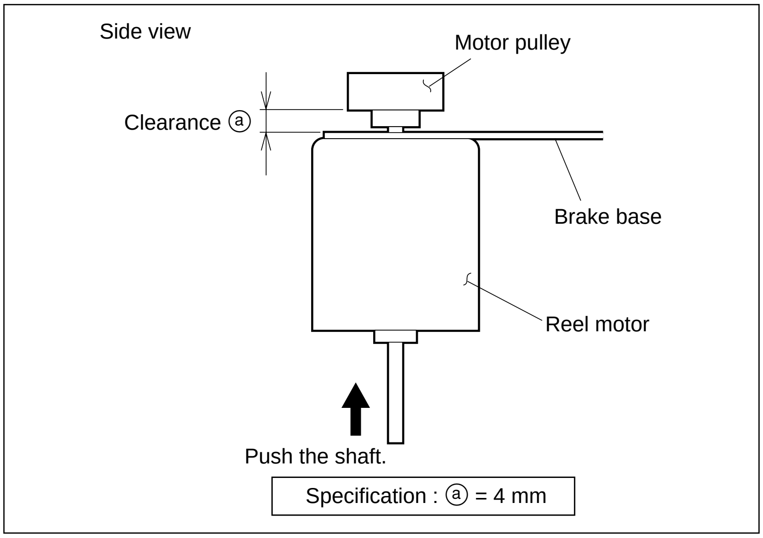
Note

Attach it positioning the affixed label in the direction as shown in the figure.

(4) Attach the motor pulley removed in step (1) onto the reel motor shaft in the direction shown in the figure.


Motor pulley
Setscrew
Screws (B2 × 3)
Screw (B2 × 3)
Brake base
Label
Reel motor

(5) While pushing the shaft of the motor in the direction of the arrow as shown in the figure, put a thickness gauge (4 mm thick) into clearance ⓐ, between the motor pulley and brake base, and then tighten the setscrew.
(6) Pull out the thickness gauge.
(7) Recheck that the clearance ⓐ meets the specification.



Specification : ⓐ = 4 mm

4. Opening the back side of the chassis

(1) Remove the bottom plate. (Refer to the Maintenance Manual Part 1, Section 1-5.)
(2) Open the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)
(3) Remove the rubber ring attached to the boss in the center of the chassis, and then remove the insulating plate.
(4) Remove the driving belt left in step “2. S reel motor assembly removal”).

5. S reel motor assembly installation

(1) Clean the following portions with a cleaning cloth moistened with cleaning fluid.
   - Motor pulley of S reel motor
   - Portion where the brake arm touches the belt
   - Midway pulley
   - Driving belt

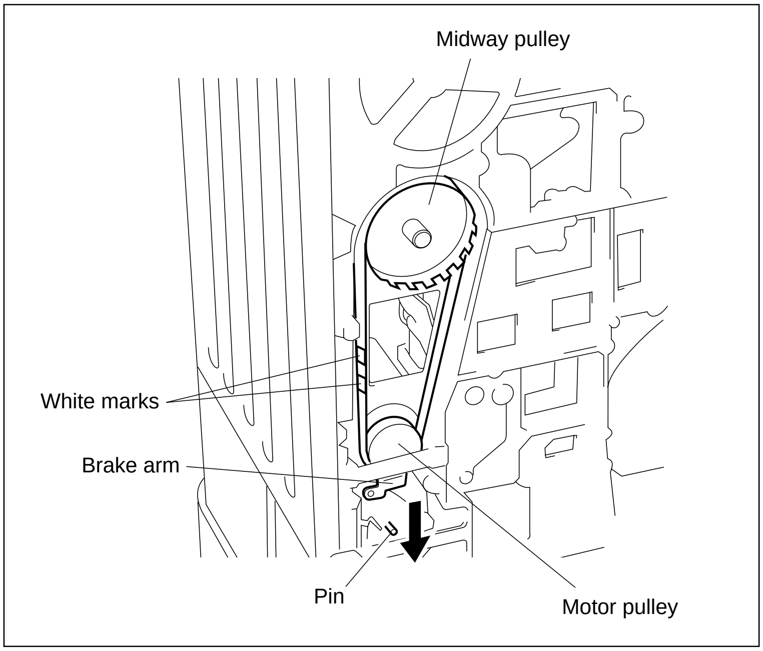
(2) Aattach the S reel motor with the two screws.

6. Driving belt installation

(1) While releasing the reel brake with fingers, loop the driving belt over the motor pulley with the white mark side of the belt faces outside.

(2) While turning the midway pulley slowly, loop the driving belt over the midway pulley.

(3) Turn the midway pulley manually by two or three turns while pushing the pin of the reel brake in the direction of the arrow with fingers, and check to see that the driving belt is put in the center of the motor pulley and midway pulley.

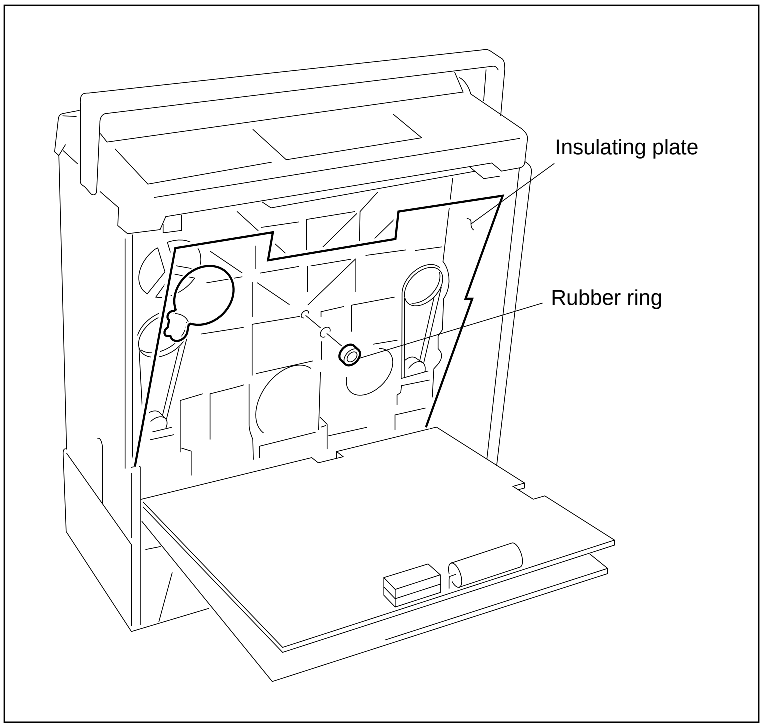


7. Closing the back side of the chassis

(1) Attach the insulating plate inserting the boss in the center of the chassis into the hole of the plate, and then attach the rubber ring to the boss.
- Make sure that each lever or pin is put in each hole of the insulating plate.
- Clamp the dew sensor harness (2-conductor) with the U-shaped notch of the insulation plate so that the harness must not be caught by the midway pulley.

(2) Mount the VPR-53 and SST-13 boards.
(Refer to Sections 4-2 and 4-3.)

(3) Attach the bottom plate.
(Refer to the Maintenance Manual Part 1, Section 1-5.)



8. Connection of connectors

Connect the harness connectors to the following connectors on the MB-825 board.

- CN951 : Harness connector of S reel motor
- CN952 : Harness connector of S brake solenoid

Adjustment after Replacement

9. S reel motor operation check

(Refer to the Maintenance Manual Part 1, Section 3-2.)

2-22. T Reel Motor Assembly Replacement

Overview

Replacement

Connector removal
Manual eject assembly removal
Pinch solenoid assembly removal
T reel motor assembly removal
T reel motor replacement
Opening the back side of the chassis
T reel motor assembly installation
Closing the back side of the chassis
Pinch solenoid assembly installation
Manual eject assembly installation
Pinch solenoid assembly position adjustment
Connector connection
Manual eject assembly position adjustment

Adjustment after replacement

T reel motor operation check
(Refer to the Maintenance Manual Part 1, Section 3-2.)

Preparation

1. Put the unit into the unthreading end state.
2. Turn the power off.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)

Note

A clutch plate and retaining ring are press-fitted and the motor driving gear is inserted in the T reel motor shaft. Prepare a new clutch plate (3-169-371-02), retaining ring (7-624-190-11), and motor driving gear (3-169-372-01) before replacing the T reel motor assembly. Do not reuse the removed parts.

Tools

• Wire clearance check gauge :	J-6152-450-A
• Torque screwdriver bit (for M2) :	J-6325-380-A
• Torque screwdriver (for 3 kg) :	J-6325-400-A
• L shaped her. Wrench (d = 1.5 mm) :	7-700-736-05
• Thickness gauge :	9-911-053-00

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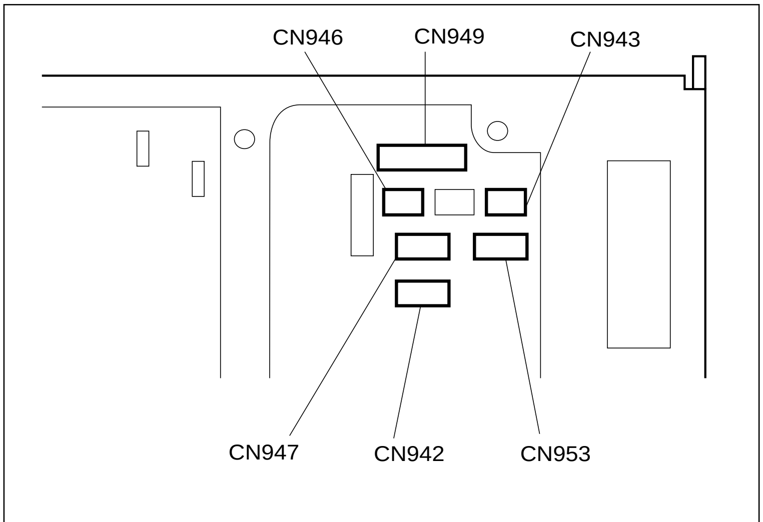
Removal

1. Disconnection of connector

Disconnect the following connectors from the MB-825 board.

- CN942 : T brake solenoid
- CN943 : T reel motor
- CN946 : Gear block assembly
- CN947 : TC head
- CN949 : TC/CUE erase head
- CN953 : Pinch solenoid


CN946
CN949
CN943
CN947
CN942
CN953

Rright part of MB-825 board

2. Manual eject assembly removal

Remove the manual eject assembly. (Refer to Section “2-13. T Reel Brake Solenoid Replacement”.

3. Pinch solenoid assembly removal

Remove the pinch solenoid assembly.
(Refer to Section “2-10. Pinch Solenoid Assembly Replacement”.)

4. T reel motor assembly removal

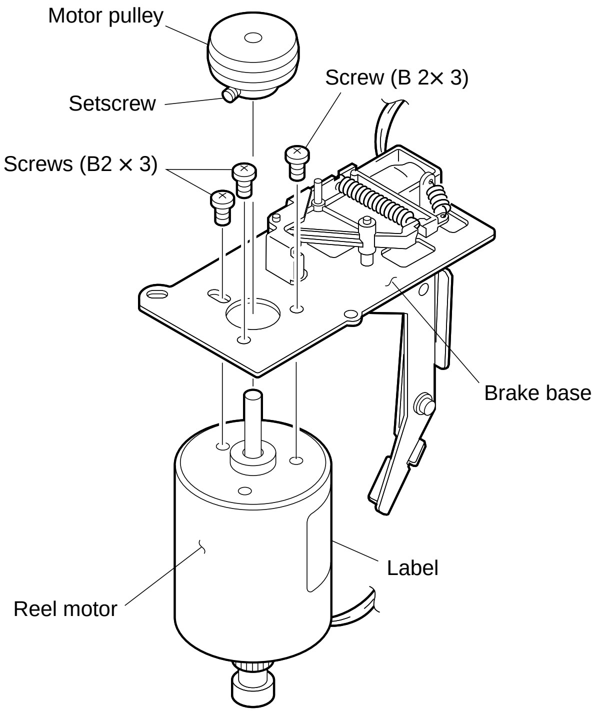
Remove the T reel motor assembly.
(Refer to Section “2-13. T Reel Brake Solenoid Replacement”.)

Installation

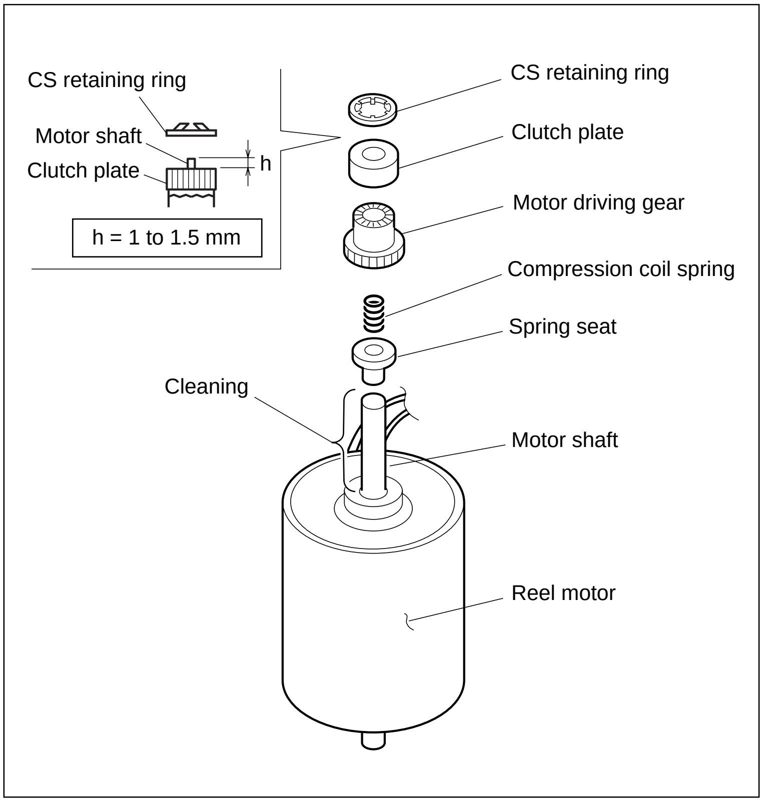
5. T reel motor assembly replacement

(1) Loosen one setscrew, and then remove the motor pulley.

(2) Remove the three screws, and then remove the T reel motor from the brake base.


Motor pulley
Screw (B 2× 3)
Setscrew
Screws (B2 × 3)
Brake base
Label
Reel motor

(3) Pull out the CS retaining ring and clutch plate from the T reel motor shaft, and then remove the motor driving gear, compression coil spring, and spring seat.
(4) Clean the shaft of a new reel motor with a cleaning cloth moistened with cleaning fluid.
(5) Attach the spring seat, compression coil spring, and new motor driving gear (3-169-372-01) onto the motor shaft as shown in the figure.
(6) Press a new clutch plate (3-169-371-02) in the motor shaft till the position shown in the figure.
(7) Attach a new CS retaining ring (7-624-190-11) to the motor shaft in the direction shown in the figure.


CS retaining ring
Motor shaft
Clutch plate
h
h = 1 to 1.5 mm
CS retaining ring
Clutch plate
Motor driving gear
Compression coil spring
Spring seat
Cleaning
Motor shaft
Reel motor

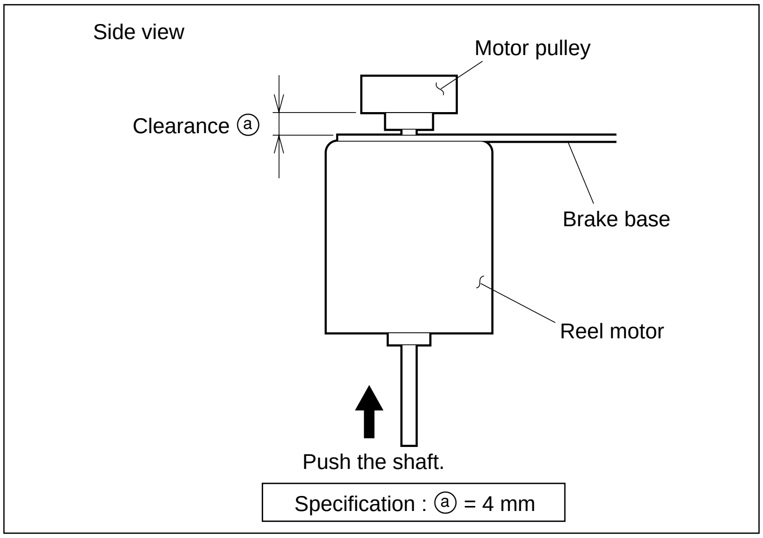
(8) Attach the reel motor to the brake base with the three screws.

Note

Attach it positioning the affixed label in the direction as shown in the figure. (Refer to the figure of the previous page.)

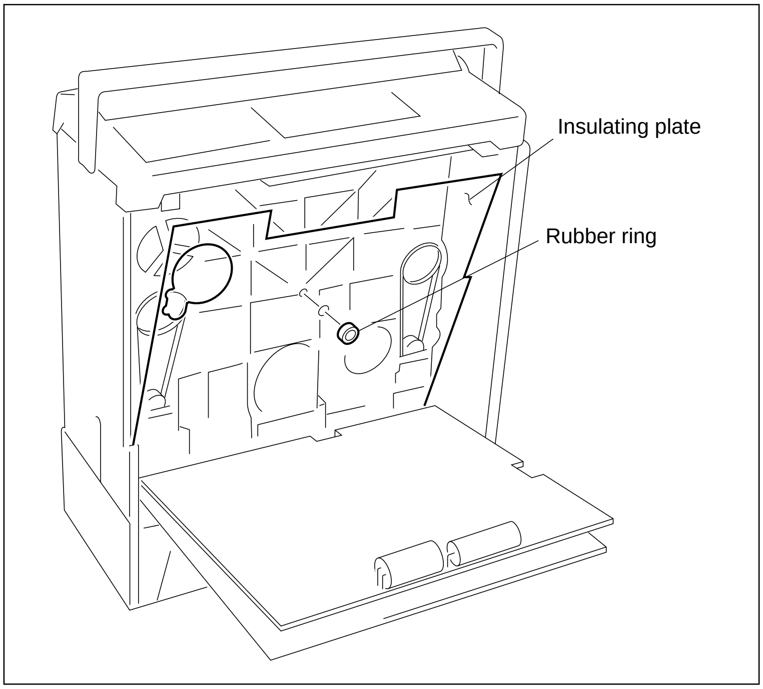
(9) Attach the motor pulley removed in step (1) onto the reel motor shaft in the direction shown in the figure.
(10) While pushing the shaft of the motor in the direction of the arrow shown in the figure, put a thickness gauge (4 mm thick) into clearance ⓐ, between the motor pulley and brake base, and then tighten the setscrew.
(11) Pull out the thickness gauge.

(12) Recheck that the clearance ⓐ meets the specification.


Side view
Motor pulley
Clearance ⓐ
Brake base
Reel motor
Push the shaft.
Specification : ⓐ = 4 mm

6. Opening the back side of the chassis

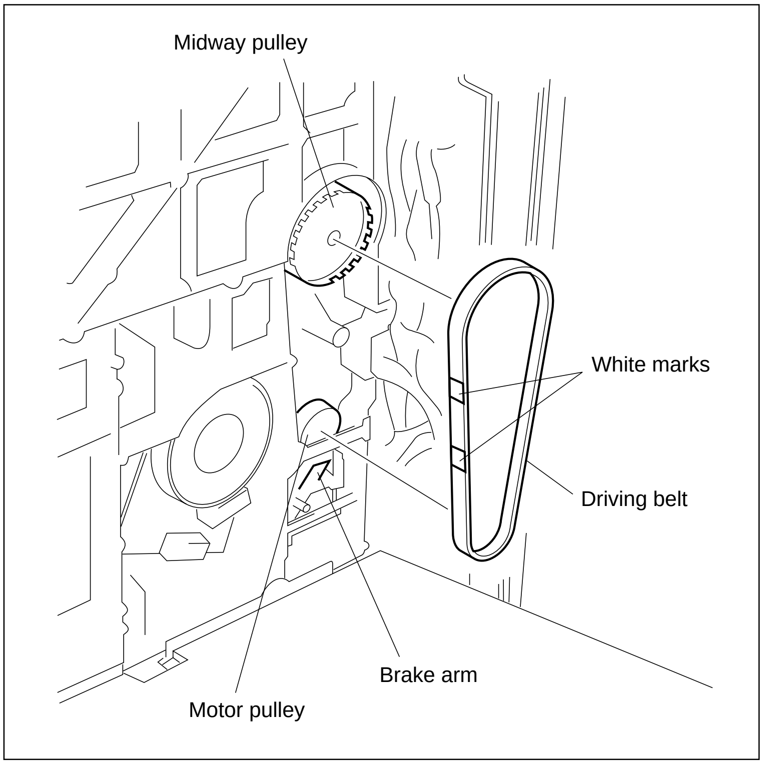
(1) Remove the bottom plate. (Refer to the Maintenance Manual Part 1, Section 1-5.)
(2) Open the VPR-53 and SST-13 boards. (Refer to Sections 4-2 and 4-3.)
(3) Remove the rubber ring from the boss in the center of the chassis, and then remove the insulating belt.
(4) Remove the driving belt left on the back side of the chassis.


Insulating plate
Rubber ring

7. T reel motor assembly installation

(1) Clean the following portions with a cleaning cloth moistened with cleaning fluid.
   - T reel motor pulley
   - Portion where the brake arm touches the belt
   - Midway pulley
   - Driving belt

(2) Attach the T reel motor assembly. (Refer to Section “2-13. T Reel Brake Solenoid Replacement”.)
(3) Attach the driving belt. (Refer to Section “2-6. Driving Belt Replacement”.)


Midway pulley
White marks
Driving belt
Brake arm
Motor pulley

8. Closing the back side of the chassis

Close the back side of the chassis.
(Refer to Section “2-13. T Reel Brake Solenoid Replacement”.)

9. Pinch solenoid assembly installation

Install the pinch solenoid assembly.
(Refer to Section “2-10. Pinch Solenoid Assembly Replacement”.)

10. Manual eject assembly installation

Install the manual eject assembly.
(Refer to Section “2-13. T Reel Brake Solenoid Replacement”.)

11. Pinch solenoid assembly position adjustment

Adjust the pinch solenoid assembly position.
(Refer to Section “2-13. T Reel Brake Solenoid Replacement”.)

12. Connection of connectors

Connect the harness connectors to the following connectors on the MB-825 board.

- CN942 : Harness connector of T brake solenoid
- CN943 : Harness connector of T reel motor
- CN946 : Harness connector of gear block assembly
- CN947 : Harness connector of TC head
- CN949 : Harness connector of TC/CUE erase head
- CN953 : Harness connector of pinch solenoid

13. Manual eject assembly position adjustment

Adjust the position of the manual eject assembly.
(Refer to Section “2-13. T Reel Brake Solenoid Replacement”.)

Adjustment after Replacement

14. T reel motor operation check

(Refer to the Maintenance Manual Part 1, Section 3-2.)

2-23. S Arm Assembly Replacement

Overview

Replacement

Stop washer removal
Mode setting change
S arm assembly removal
S arm assembly installation
Operation check
Cleaning

Adjustment after replacement

Tape path adjustment (Refer to Section 3-1-1.)

Preparation

1. Put the unit into the unthreading end mode.
2. Turn the power off.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section “1-6. Removing and Reinstalling the Cassette Compartment”.)

Notes

- The two types of stop washer are used in the S arm assembly. Before replacing the S arm assembly, prepare new stop washers (3-669-465-01 and 3-726-829-01).
- The height of the tape guide (S4 guide) of the S arm assembly has been adjusted. Do not turn the upper flange.

Tools

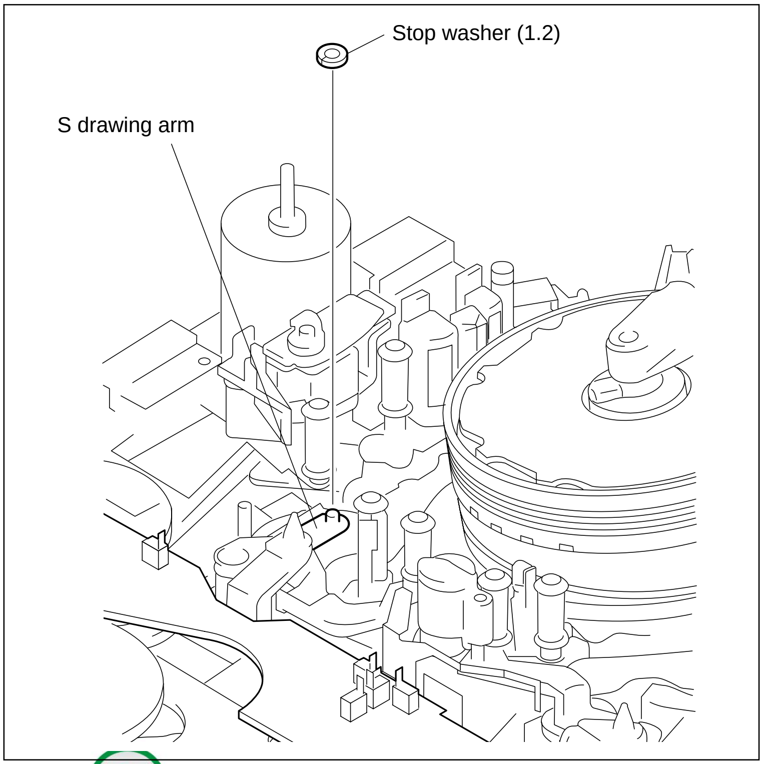
- Stop washer fastening tool : J-6323-530-A
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01
- Oil : 7-661-018-18
- Molyton grease : 7-662-001-41

Removal

1. Stop washer removal

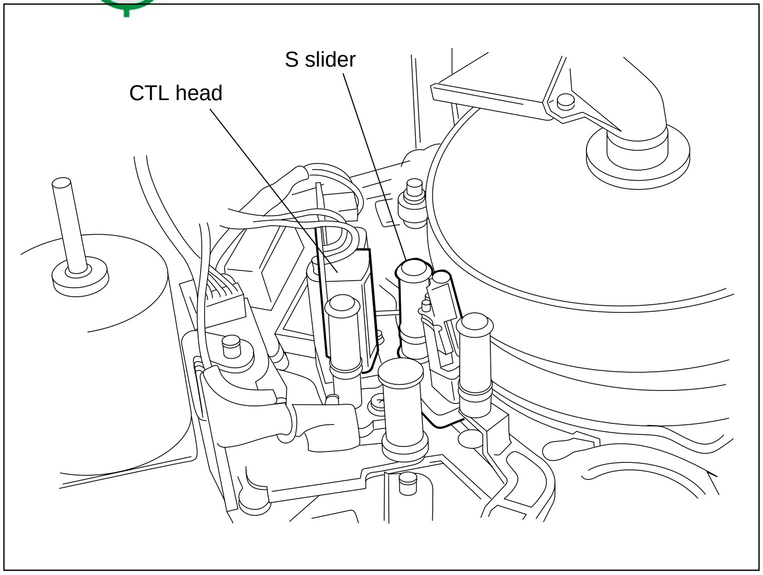
(1) Put the unit into the unthreading end mode.

(2) Remove the stop washer (1.2) of the drawing arm.


Stop washer (1.2)
S drawing arm

2. Mode setting change

With the brake release lever is pulled, turn the manual eject gear clockwise while pressing it downward until the tape guide of the S slider reaches in the front of the CTL head.


S slider
CTL head

3. S arm assembly removal

(1) Remove the stop washer (1.5) of the S arm assembly and the compression coil spring under the stop washer (1.5).

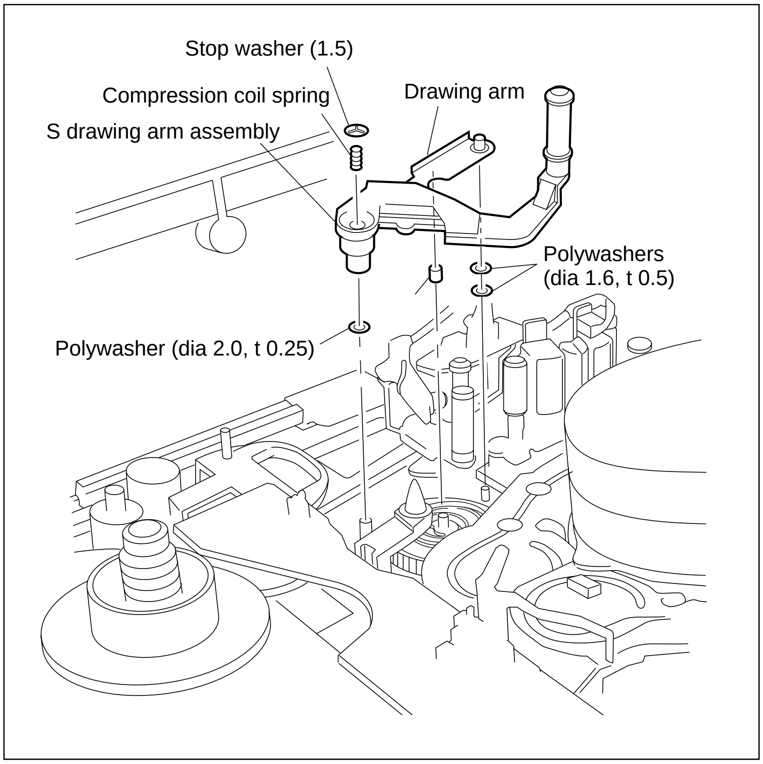
Note

Be careful not to lose the compression coil spring.

(2) Remove the S arm assembly from the chassis.

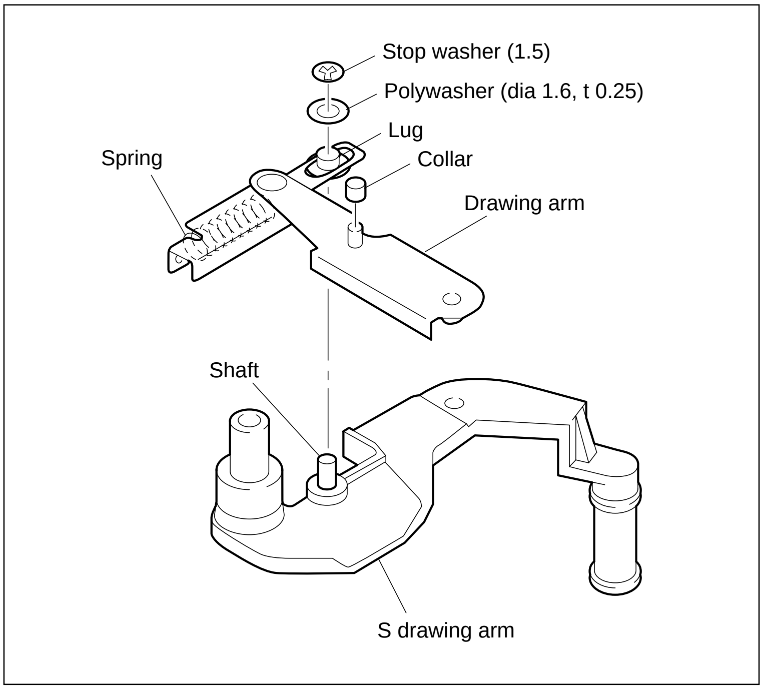
Notes

- When removing, be careful not to contact the drum or others.
- A very small collar is installed in the shaft at the back of the S arm assembly.
  Be careful not to lose the collar when removing the S arm assembly.
  If the small collar is left on the drawing arm gear, take out it using a pair of tweezers.
- If polyslider washers adhere to the bearing of the S arm assembly, take out the polyslider washers and install it in the shaft on the chassis.


Stop washer (1.5)
Compression coil spring
Drawing arm
S drawing arm assembly
Polywashers
(dia 1.6, t 0.5)
Polywasher (dia 2.0, t 0.25)

Notes

- When replacing the drawing arm or S drawing arm is replaced instead of replacing the S arm assembly, refer to the illustration in the right.
- Be sure to use a new stop washer (3-726-829-01).


Stop washer (1.5)
Polywasher (dia 1.6, t 0.25)
Lug
Spring
Collar
Drawing arm
Shaft
S drawing arm

Installation

4. S arm assembly installation

(1) Clean the two fixing shafts of the S arm assembly on the chassis using a cleaning cloth moistened with cleaning fluid, then apply a half drop of oil to the fixing shafts.

(2) Apply a half drop of oil to the fixing shaft of the collar which is removed in step (2) of “3. S arm assembly removal” on a new S arm assembly.

(3) Attach the collar into the shaft.

(4) Apply a light coating of molyton grease to the groove of the drawing arm gear. (Shaded portion in the figure)

(5) Attach the S arm assembly onto the chassis.

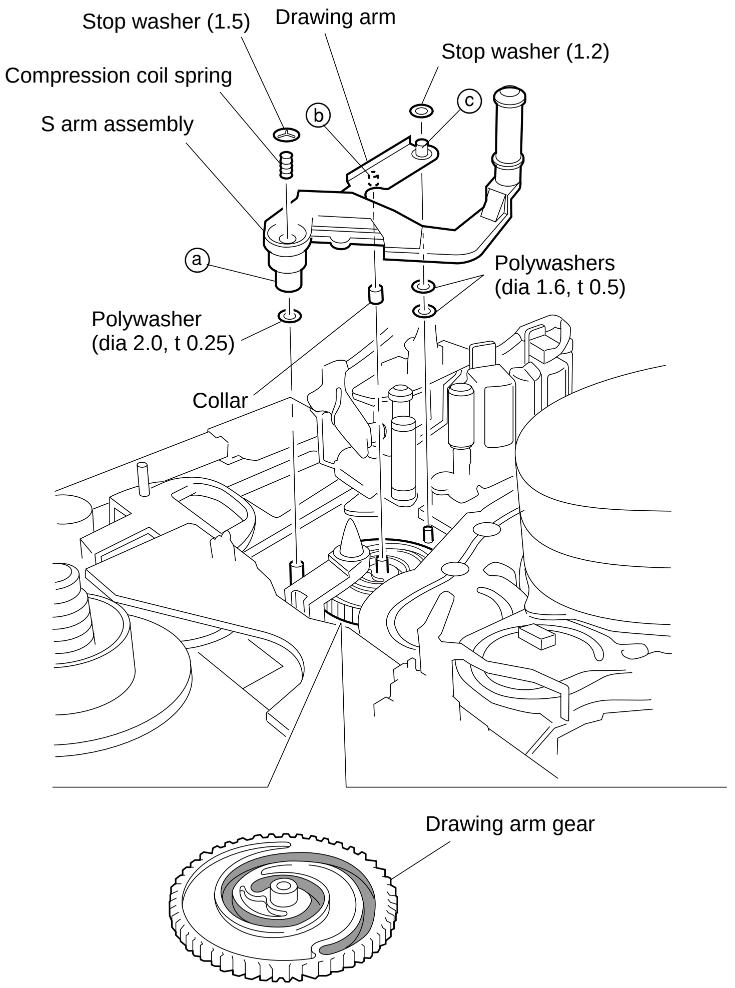
Note

Firstly slide the portion ⓐ of the S arm assembly onto the shaft of the chassis, then insert the collar into the groove of the drawing arm gear and align it with the portion ⓑ while aligning the portion ⓒ with the shaft of the chassis.

(6) Insert the compression coil spring into the fixing shaft of the S arm assembly, and then attach it using a new stop washer (3-669-465-01).

(7) With the brake release lever is pulled, turn the manual eject gear counterclockwise while pressing it downward to put the unit into the unthreading end mode.

(8) Attach the drawing arm using a new stop washer (3-726-829-01).



5. Operation check

Turn the manual eject gear clockwise and counterclockwise, and then check that the threading and unthreading operations are performed smoothly.

6. Cleaning

Clean the tape guide using a cleaning cloth moistened with cleaning fluid.

Adjustment after Replacement

7. Tape path adjustment

(Refer to Section 3-1-1.)

2-24. T Link and T Arm Assembly Replacement

Overview

Replacement

Mode setting
T link and T arm assembly removal
T link or T arm assembly replacement
T limiter spring replacement
T link and T arm assembly installation
Operation check
Cleaning

Adjustment after replacement

Alignment tape tracking check (Refer to Section 3-2-10.)

Note

This section describes the replacement procedure of the T link, T arm assembly and the T limiter spring.

Preparation

1. Put the unit into the unthreading end state.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section “1-6. Removing and Reinstalling the Cassette Compartment”.)

Note

Stop washer and E-ring are used to install the T arm assembly. A new stop washer (3-669-465-01) and a new E-ring (7-624-102-01) are required for replacement.

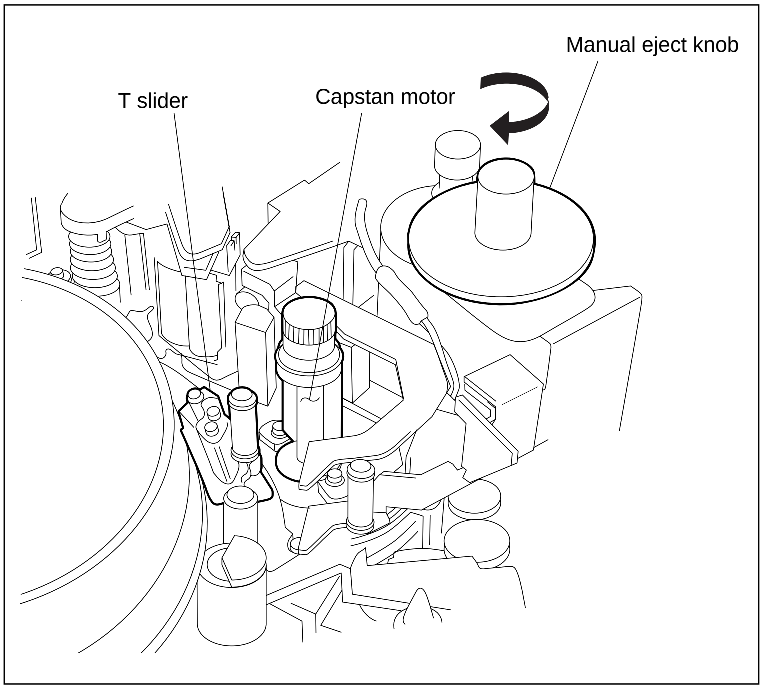
Tools

• Stop washer fastening tool :	J-6323-530-A
• Cleaning cloth :	3-184-527-01
• Cleaning liquid :	9-919-573-01
• Oil :	7-661-018-18

Removal

1. Mode setting

With the brake release lever is pulled, turn the manual eject gear clockwise while pressing it downward until the T slider reaches in the front of the capstan motor.


Manual eject knob
T slider
Capstan motor

2. T arm assembly removal

(1) Remove the E-ring (1.5) of the T link.

(2) Remove the stop washer (1.5) of the T arm assembly. Remove the polyslider washer (t0.5) and compression coil spring under the stop washer simultaneously.

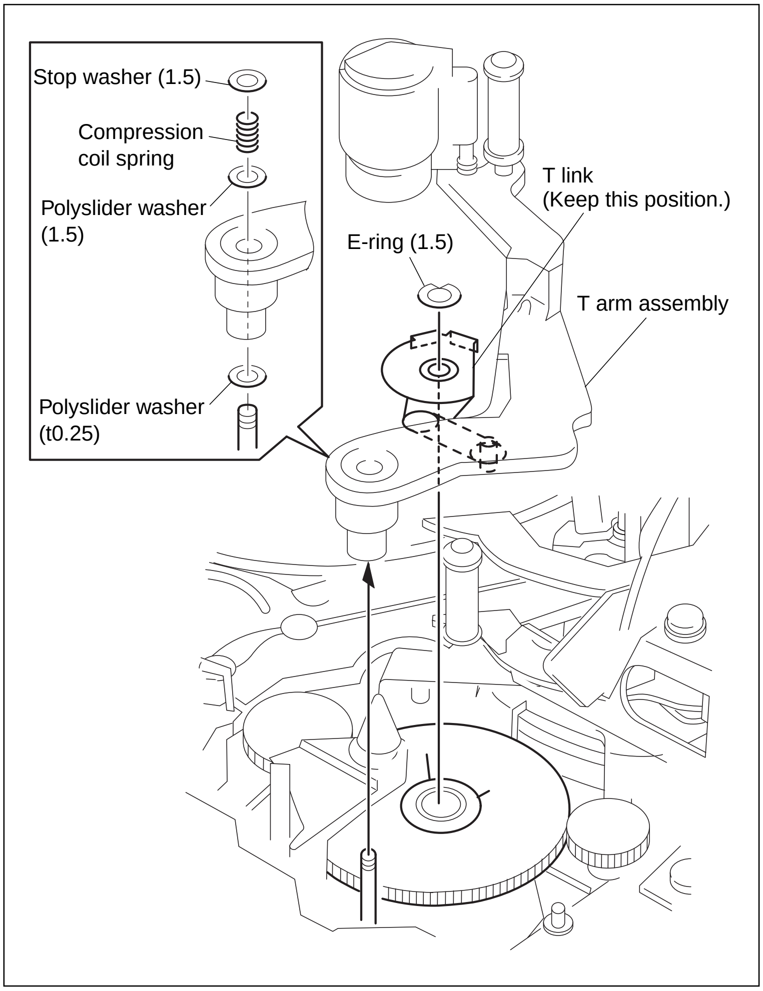
Note

Be careful not to lose the compression coil spring.

(3) Remove the T arm assembly from the chassis.
The polyslider washer (t0.25) between the T arm assembly and slant base may be sometimes removed together, be careful not to lose it.

Note

Do not contact the drum during removal.


Stop washer (1.5)
Compression coil spring
Polyslider washer (1.5)
Polyslider washer (t0.25)
T link (Keep this position.)
E-ring (1.5)
T arm assembly

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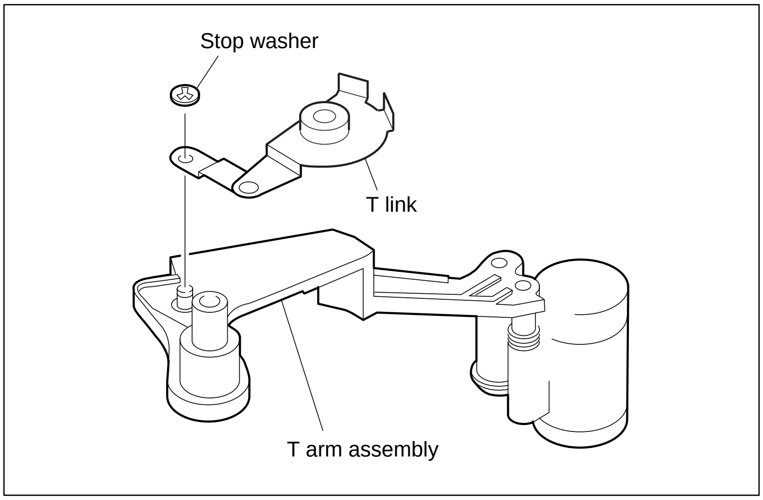
Installation

3. T link replacement

(1) Remove the stop washer, and then remove the T link from the T arm assembly.

(2) Attach a new T link and fix it using a new stop washer (3-726-829-01).


Stop washer
T link
T arm assembly

4. T limiter spring replacement

When the T limiter spring need to be replaced, replace it as follows :

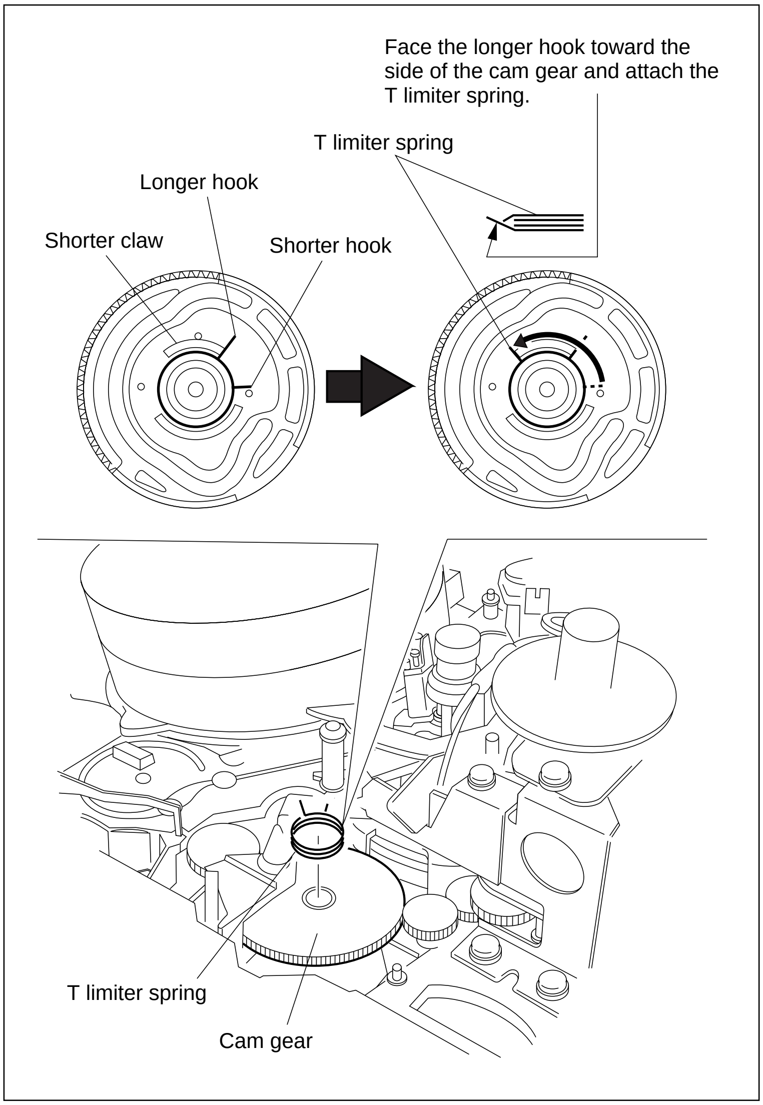
(1) Remove the T limiter spring from the cam gear to replace it.

5. T arm assembly installation

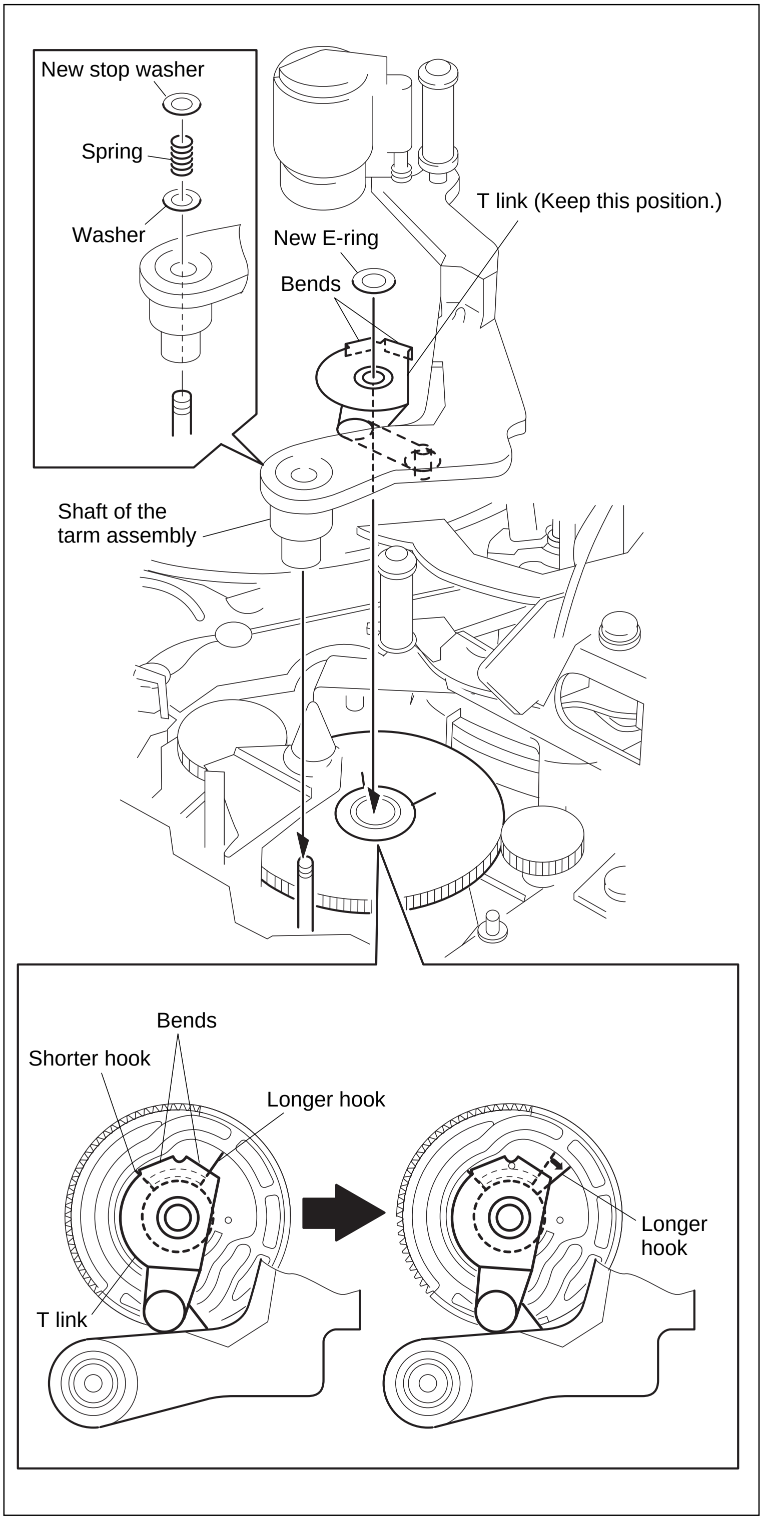
(1) Clean the fixing shaft of the T arm assembly with a cleaning cloth moistened with cleaning fluid.

(2) Apply a half drop of oil to the fixing shaft of the T arm assembly.

(3) Face the longer hook of the T limiter spring toward the side of the cam gear and hang the shorter hook on the shorter claw of the cam gear as shown in the figure.


Face the longer hook toward the side of the cam gear and attach the T limiter spring.
T limiter spring
Longer hook
Shorter claw
Shorter hook
T limiter spring
Cam gear

(4) Check to be sure that a polyslider washer (t0.25) is attached in the T link assembly fixing shaft.
(5) Put the assembled T link of the T arm assembly in the position shown in the figure.
(6) Insert the shaft of the T arm assembly into the shaft of the chassis while holding the state in step (5).
Insert the bends of the T link between both hooks of the T limiter spring put in step (3) as shown in the figure.
(7) Attach the T link in the fixing shaft using a new E-ring (7-624-102-01).
(8) Insert a polyslider washer (t0.5) and compression coil spring into the fixing shaft of the T arm assembly, and then fix them using a new stop washer (3-669-465-01).


New stop washer
Spring
Washer
New E-ring
Bends
T link (Keep this position.)
Shaft of the tarm assembly
Bends
Shorter hook
Longer hook
T link
Longer hook

6. Operation check

With the brake release lever is pulled, turn the manual eject gear clockwise and counterclockwise while pressing it downward, and then check to see that the threading and unthreading operations are performed smoothly and the hooks of the T limiter spring are not detached.

7. Cleaning

Clean the pinch roller, tape guide, and capstan shaft with cleaning cloth moistened with cleaning fluid.

Adjustment after Replacement

8. Alignment tape tracking check

(Refer to section 3-2-10.)

2-25. Replacement of the Component Parts of the Threading Link Block

Overview

Replacement

SE-510 board removal
Unthread guide plate removal
Disconnection of brush connector
Video head cleaner assembly removal
Drum removal
S arm removal
T arm removal
Drawing arm gear removal
Catcher S/T removal
Threading link assembly removal
Slider S/T removal
Threading gear assembly S/T removal
Replacement of ST driving gear and ST driving middle gear
Intermittent gear replacement
Cam gear replacement
T threading gear installation
S threading gear installation
Slider S/T installation
Threading link assembly installation
Catcher S/T installation
Drawing arm gear installation
T arm installation
S arm installation
Drum installation
Video head cleaner assembly installation
Connection of brush connector
Unthread guide plate removal
SE-510 board installation

Adjustment after replacement

S2/T2 guide slantness check (Refer to Section 3-3-3.)
Tape path adjustment (Refer to Section 3-1-1.)

Note

This section describes the replacement procedure of the drawing arm gear, catcher S/T, slider S/T, threading gear S/T, ST driving gear, ST driving middle gear, intermitter gear, cam gear, and rail S/T. And it is explained in this section that the phase adjustment of the intermittent gear.

Preparation

1. Set the unit to unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)
4. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section "1-6. Removing and Reinstalling the Cassette Compartment".)

Note

When replacing, new stop washers (3-726-829-01) and new E-rings (7-624-102-01) are required.

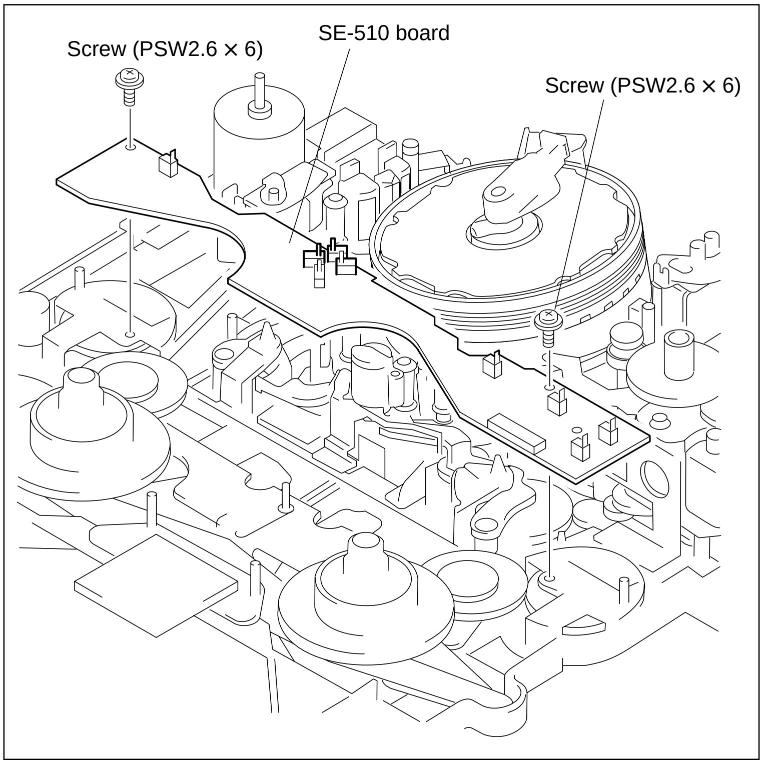
Tools

• FWD back tension measuring cassette tape :	J-6323-190-A
• Stop washer fastening tool :	J-6323-530-A
• Torque screwdriver bit (for M1.4) :	J-6325-110-A
• Torque screwdriver (for 3kg) :	J-6325-400-A
• Cleaning cloth :	3-184-527-01
• Cleaning fluid :	9-919-573-01

Removal

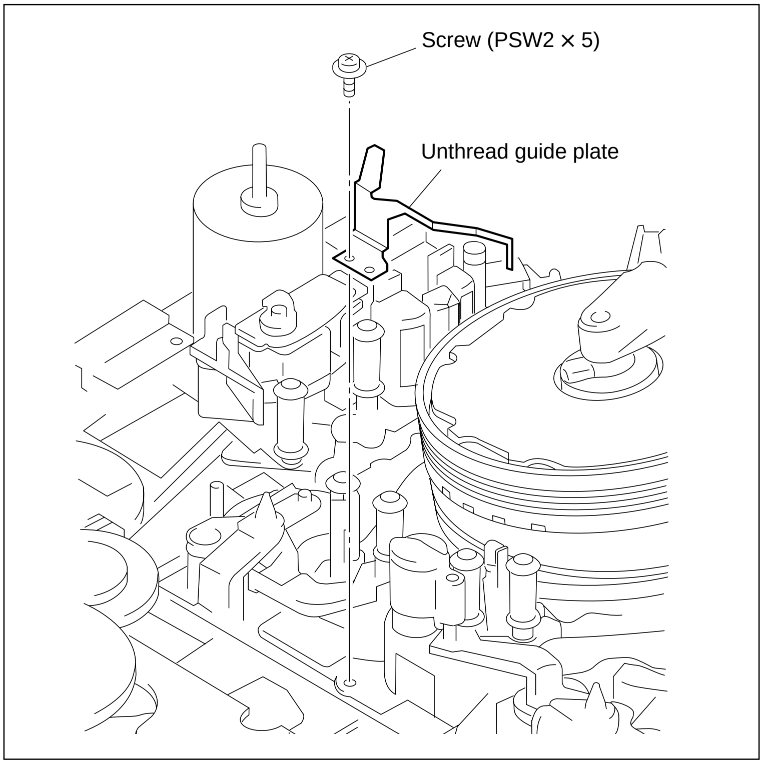
1. SE-510 board removal

Remove the two screws and the SE-510 board.



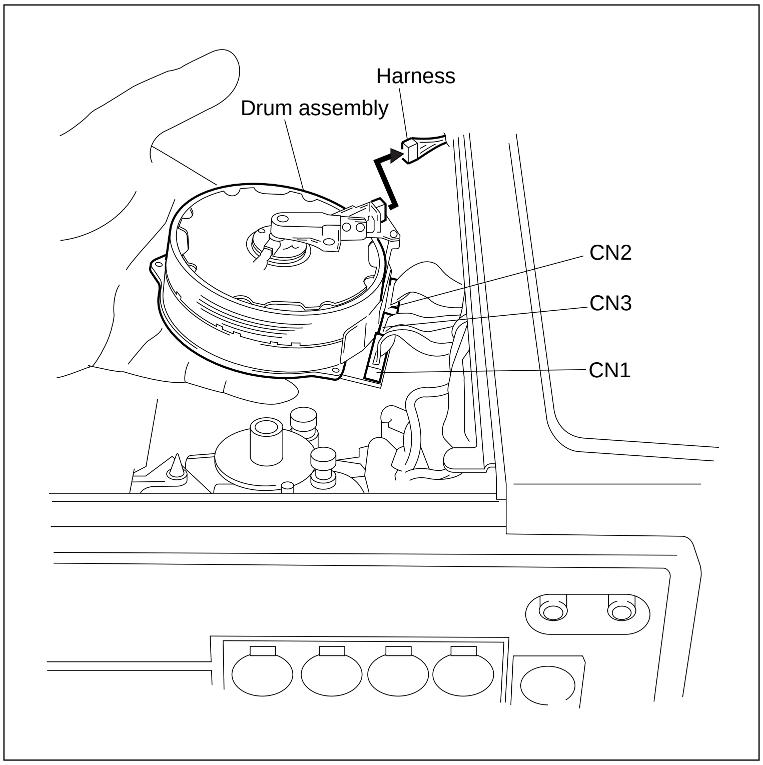
2. Unthread guide plate removal

Remove the screw and the unthread guide plate.



3. Disconnection of brush connector

Disconnect the harness from the connector on the brush board.



4. Video head cleaner assembly removal

Remove the video head cleaner assembly.
(Refer to Section “2-8. AHC Roller Assembly Replacement”.)

5. Drum removal

(1) Remove the three screws fixing the drum.
(2) Lift just above the drum assembly and disconnect the harness from the three connectors (CN1, CN2 and CN3) on the board at the bottom of the drum.

Note

When removing the drum, take care not to damage the CTL head, CUE/TC head and the peripheral tape guides.

6. S arm assembly removal

Remove the S arm assembly.
(Refer to Section “2-23. S Arm Assembly Replacement”.)

7. T arm removal

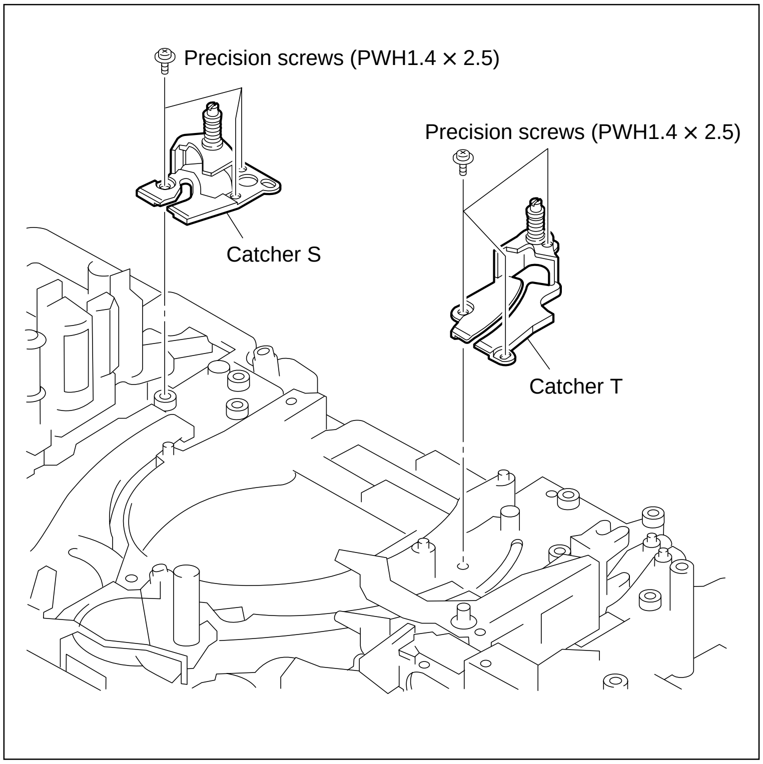
Remove the T arm assembly.
(Refer to Section “2-24. T Link and T Arm Assembly Replacement”.)

8. Drawing arm gear removal

Remove the stop washer and the drawing arm gear.
(Refer to step “21. Drawing arm gear installation”.)

9. Catcher S/T removal

(1) Remove the three precision screws and the catcher S.
(2) Remove the three precision screws and the catcher T.

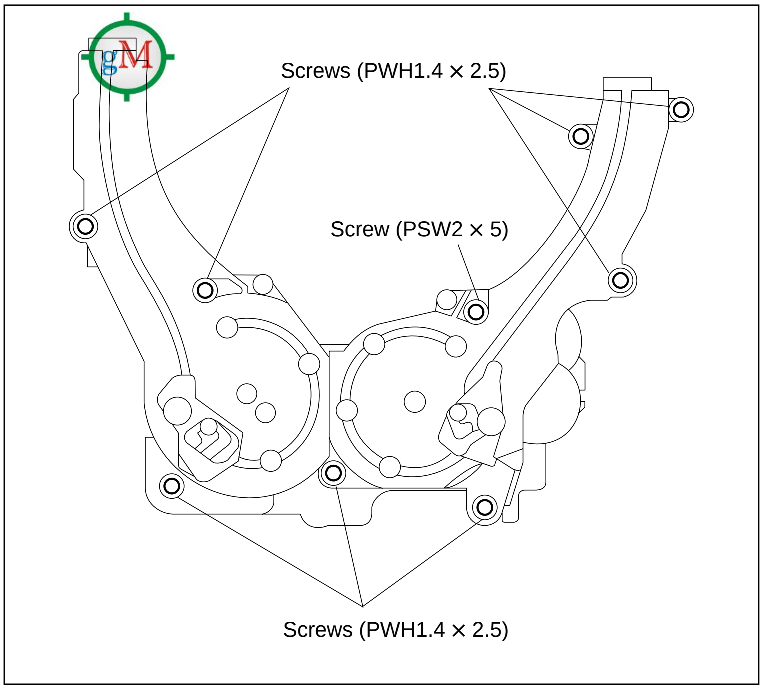

Precision screws (PWH1.4 × 2.5)
Precision screws (PWH1.4 × 2.5)
Catcher S
Catcher T

10. Threading link assembly removal

(1) Remove the eight precision screws shown in the figure and one screw.
(2) Remove the threading link assembly.

Note

Do not contact the rails with the stationary heads.

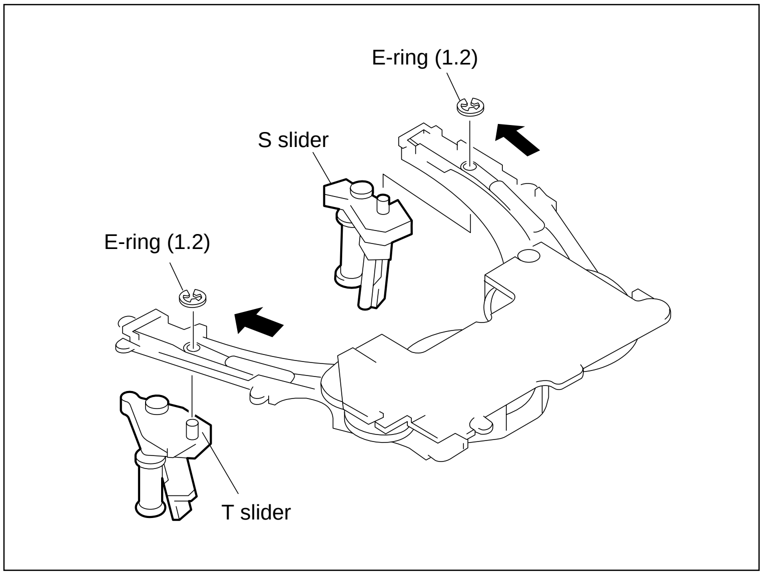

Screws (PWH1.4 × 2.5)
Screw (PSW2 × 5)
Screws (PWH1.4 × 2.5)

11. Slider S/T removal

(Common to the S side and T side)

(1) Pull out the slider and remove the E-ring from the back side.

(2) Remove the slider from the end of the rail.


E-ring (1.2)
S slider
E-ring (1.2)
T slider

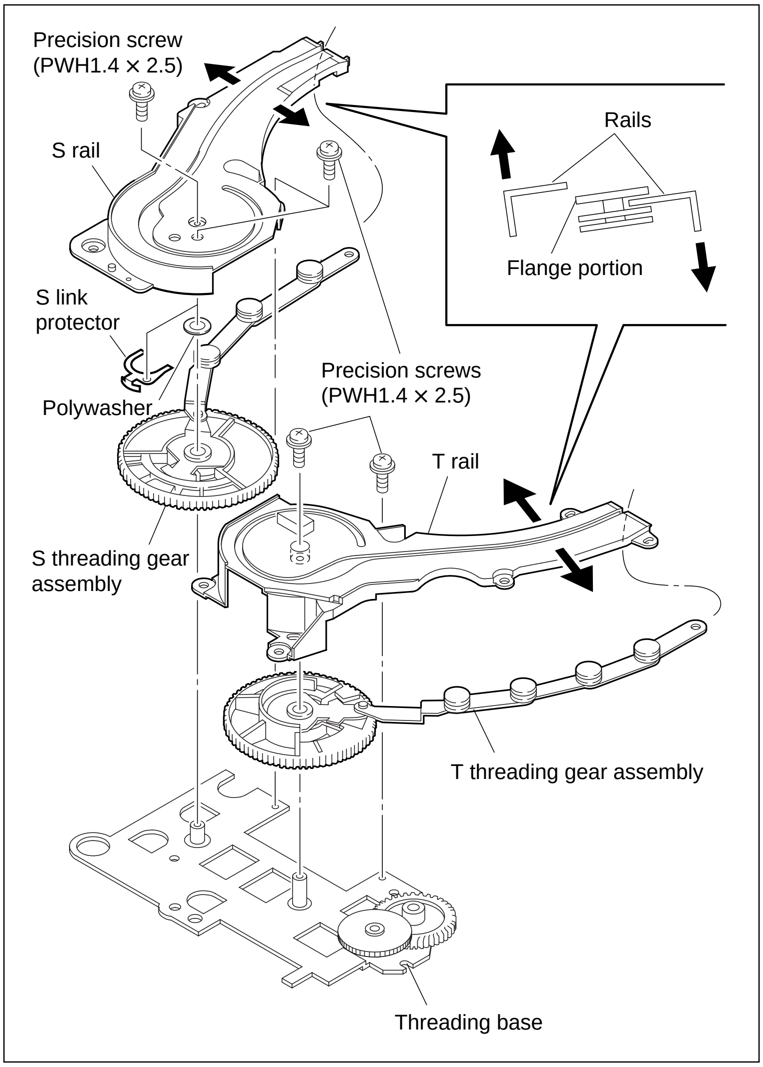
12. Threading gear assembly removal

(Common to the S side and T side)

(1) Remove the flange portion at the link shaft of the threading gear assembly from the rail while unfolding the groove of the rail.

(2) Remove the two precision screws, and remove the rail and the threading gear assembly from the threading base. (The polywasher is attached in the S side.)

(3) Remove the precision screw and the S link protector from the S rail.
Do not lose or bend it because it is reused.

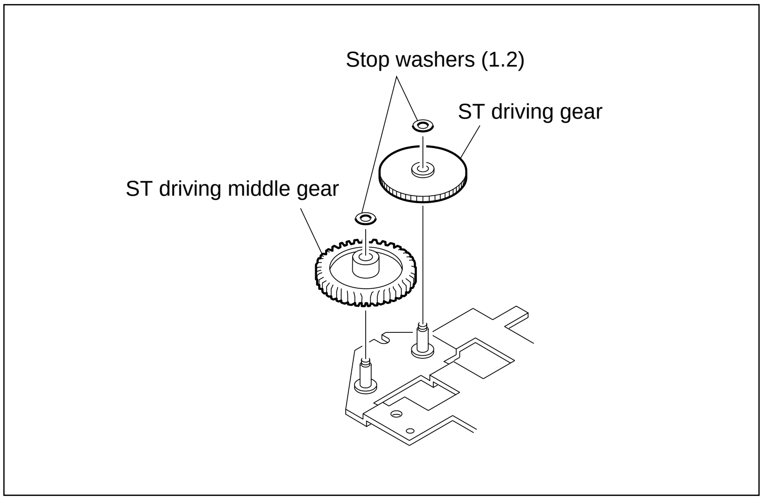

Precision screw
(PWH1.4 × 2.5)
Rails
S rail
Flange portion
S link
protector
Precision screws
(PWH1.4 × 2.5)
Polywasher
T rail
S threading gear
assembly
T threading gear assembly
Threading base

Installation

13. ST driving gear and ST driving middle gear replacement

When the ST driving gear and ST driving middle gear need to be replaced, replace them as follows :

(1) Remove the polyslider (ø1.2) to remove the ST driving gear.
(2) Remove the polyslider (ø1.2) to remove the ST driving middle gear.
(3) Clean the two shafts and apply a quarter of a drop of oil to the shafts.
(4) Put the ST driving middle gear onto the shaft and fix it using the stop washer (1.2).
(5) Put the ST driving gear onto the shaft and fix the stop washer (1.2).


Stop washers (1.2)
ST driving gear
ST driving middle gear

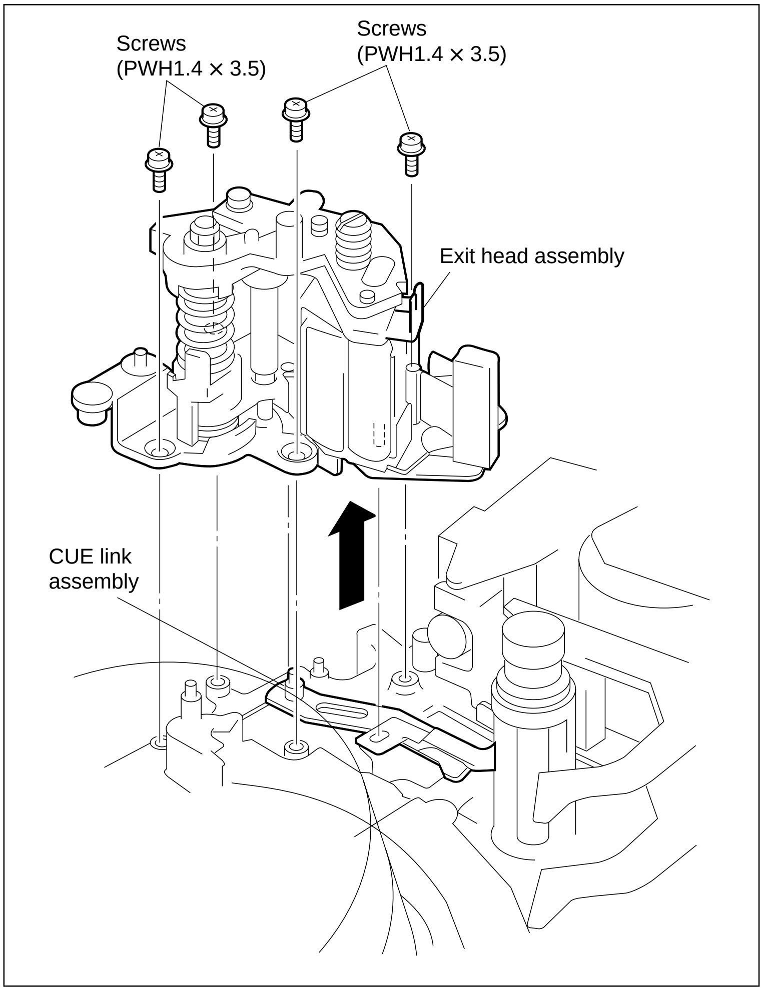
14. Intermittent gear replacement

When the intermittent gear needs to be replaced, replace it as follows.

(1) With the brake release lever is pulled, turn the manual eject gear counterclockwise while pressing it downward to put the unit to the unthreading end state.
(2) Remove the four screws shown in the figure, and then lift the exit head assembly out from the unit.

Note

Be careful not to damage the drum or other peripheral parts with a screwdriver or others.

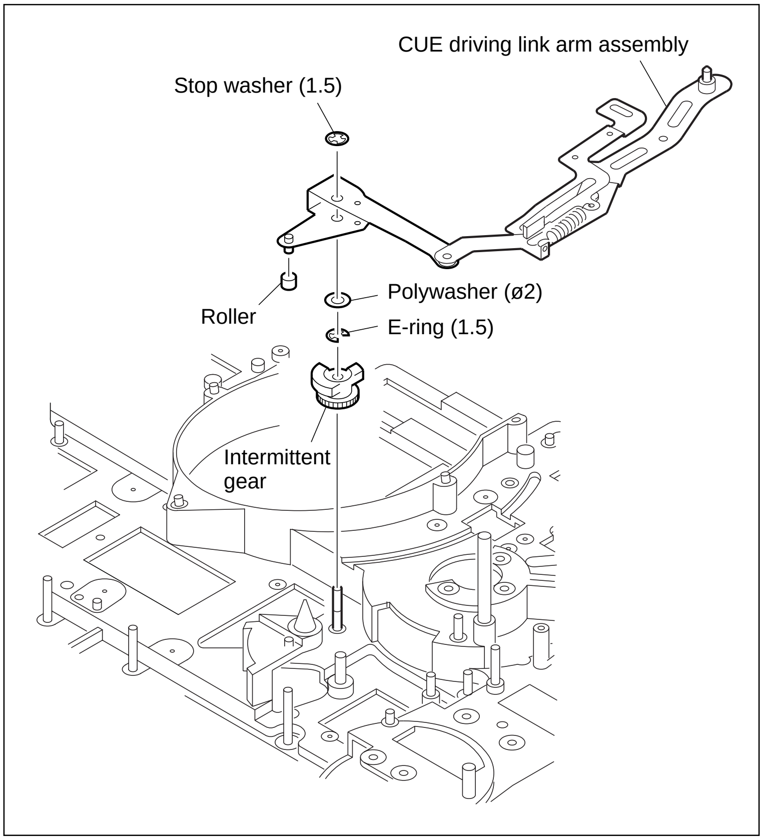

Screws
(PWH1.4 × 3.5)
Screws
(PWH1.4 × 3.5)
Exit head assembly
CUE link
assembly

(3) Remove the stop washer (ø1.5) and remove the CUE driving link arm assembly.

Note

Be careful not to lose the roller which is attached to the tip of the pin.

(4) Remove the polywasher (ø2) and E-ring (1.5).
(5) Remove the intermittent gear from the shaft.
(6) Clean the shaft and apply a quarter of a drop of oil to the shaft.
(7) Put the intermittent gear into the shaft and fix it using the E-ring (1.5).
(8) Put the polywasher (ø2) into the shaft, and then attach the CUE driving link arm assembly.


CUE driving link arm assembly
Stop washer (1.5)
Polywasher (ø2)
Roller
E-ring (1.5)
Intermittent gear

15. Cam gear replacement

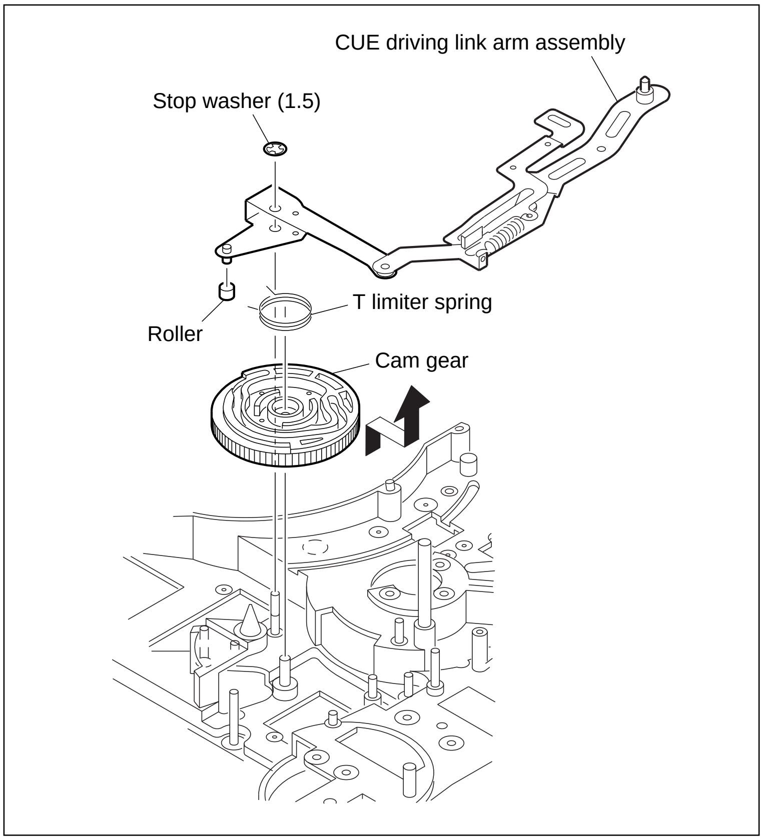
When the cam gear needs to be replaced, replace it as follows :

(1) Remove the stop washer (ø1.5) and remove the CUE driving arm assembly.

Note

Be careful not to lose the roller which is attached to the tip of the pin.

(2) Remove the T limiter spring.
(3) Remove the cam gear in the direction of the arrow.


CUE driving link arm assembly
Stop washer (1.5)
T limiter spring
Roller
Cam gear

(4) Clean the shaft and apply a quarter of a drop of oil.

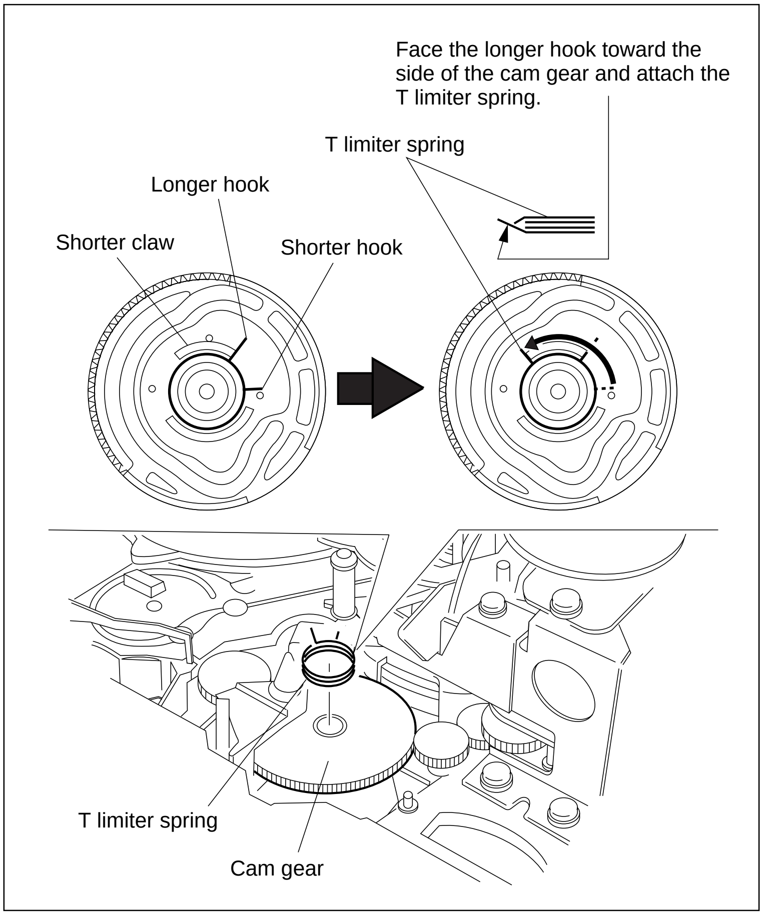
(5) Put the cam gear into the shaft.

Note

Be careful not to adhere grease or to put a fingerprint on the shining surface on the rear of the cam gear.

(6) Face the longer hook of the T limiter spring toward the side of the cam gear and hang the shorter hook on the small claw of the cam gear as shown in the figure.

(7) Attach the CUE driving link arm assembly.


Face the longer hook toward the side of the cam gear and attach the T limiter spring.
T limiter spring
Longer hook
Shorter claw
Shorter hook
T limiter spring
Cam gear

16. T threading gear assembly installation

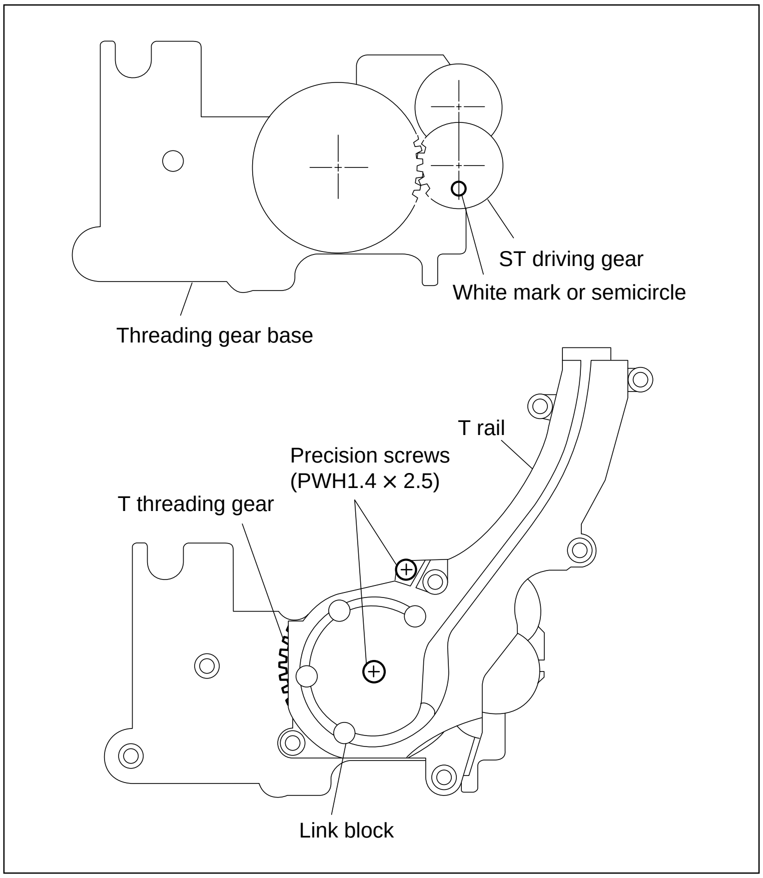
(1) While unfolding the groove of the rail, insert the flange block of the link shaft of the T threading gear assembly into the rail.

(2) Turn the T threading gear clockwise until the link block is wound completely.

(3) Align the white mark or semicircle of the ST driving gear with the position shown in the figure.

(4) Engage the T threading gear and the ST driving gear during the status of steps (2) and (3).

(5) Attach the rail using the two precision screws.


ST driving gear
White mark or semicircle
Threading gear base
T rail
Precision screws (PWH1.4 × 2.5)
T threading gear
Link block

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17. S threading gear assembly installation

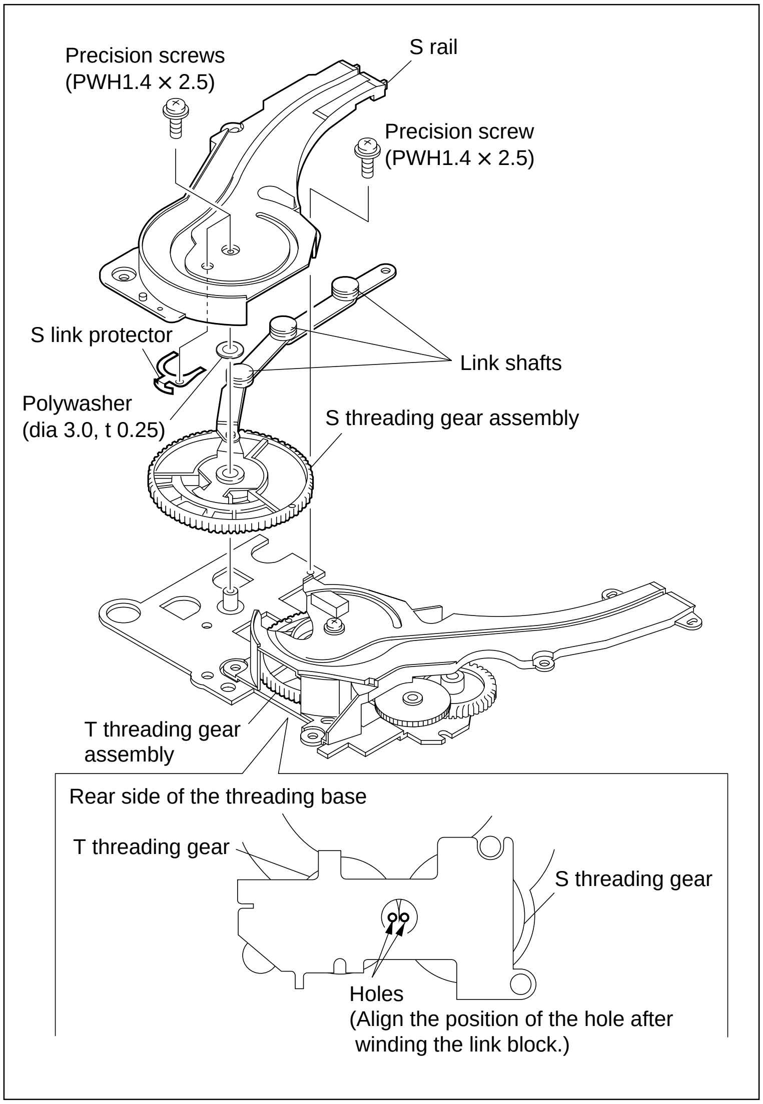
(1) While unfolding the groove of the rail, insert the flange block of the link shaft of the S threading gear assembly into the rail.

(2) Turn the S threading gear counterclockwise to wind the link block.

(3) While aligning the holes of the S threading gear and the T threading gear as shown in the figure, attach the S threading gear assembly to the threading base.

(4) Attach the S link protector using the precision screw.

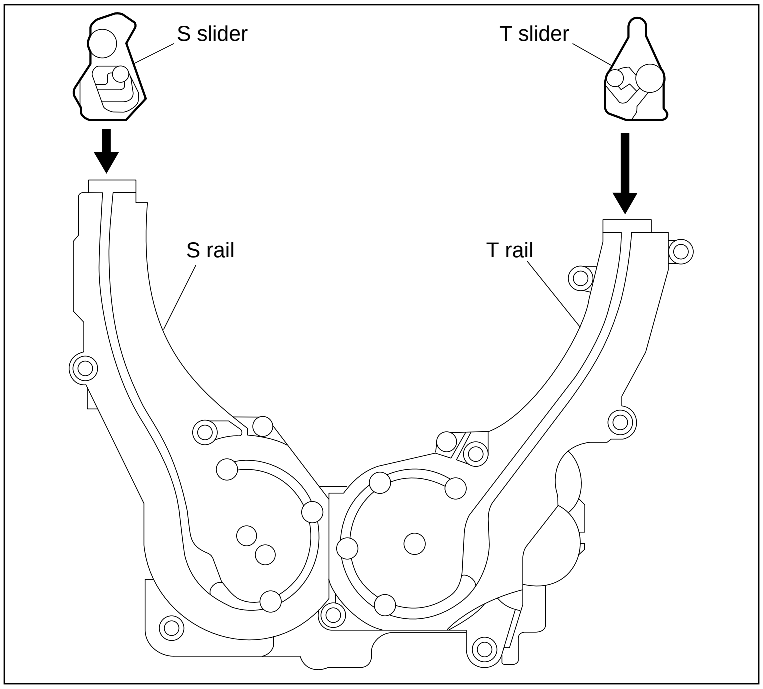
(5) Attach the polywasher and secure the rail using the two precision screws.


Precision screws
(PWH1.4 × 2.5)
S rail
Precision screw
(PWH1.4 × 2.5)
S link protector
Link shafts
Polywasher
(dia 3.0, t 0.25)
S threading gear assembly
T threading gear
assembly
Rear side of the threading base
T threading gear
S threading gear
Holes
(Align the position of the hole after
winding the link block.)

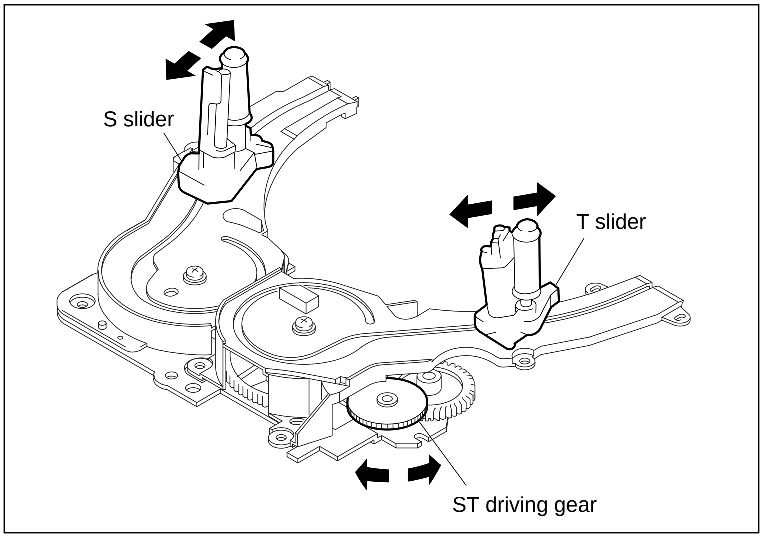
18. Slider (S/T) installation

(1) Slide the slider (S/T) into the rail in the direction of the arrow.

(2) Pass the installing shaft in the back side of the slider through the hole of the link, and then fix the slider using a new E-ring (7-624-102-01).

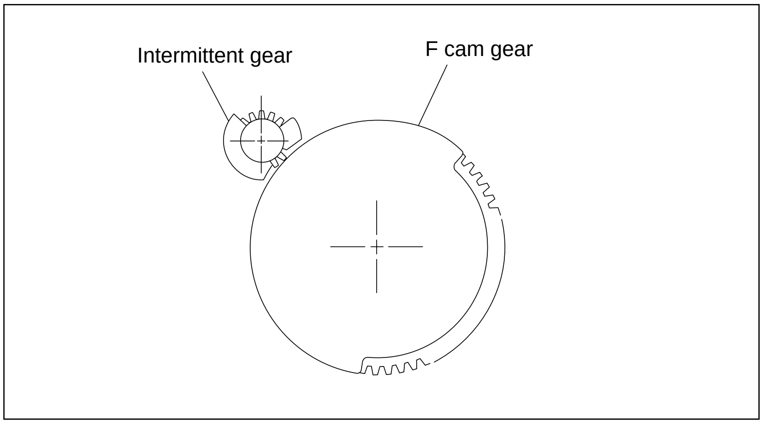

S slider
T slider
S rail
T rail

(3) Turn the ST driving gear with finger and check to see that the sliders move smoothly.

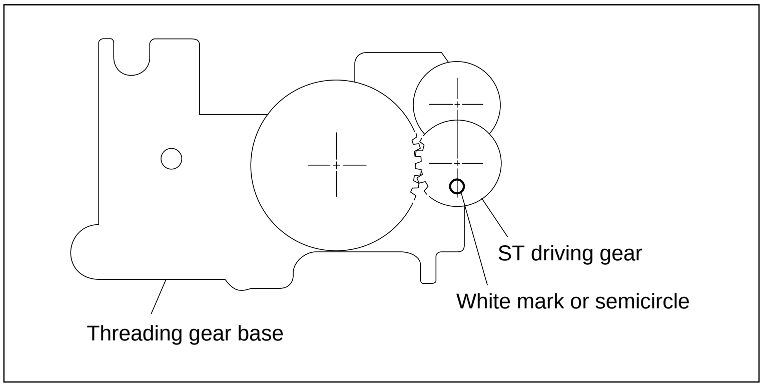

S slider
T slider
ST driving gear

19. Threading link assembly installation

(1) Turn the manual eject gear clockwise until the F cam gear is at the position shown in the figure.


Intermittent gear
F cam gear

(2) Turn the ST driving gear until the white mark or semicircle of the gear reaches over the frame of the threading gear base.


ST driving gear
White mark or semicircle
Threading gear base

(3) While aligning the boss (A) with the hole (A), and the notch (B) with the boss (B) as shown in the figure, attach the threading link assembly onto the mechanical chassis.

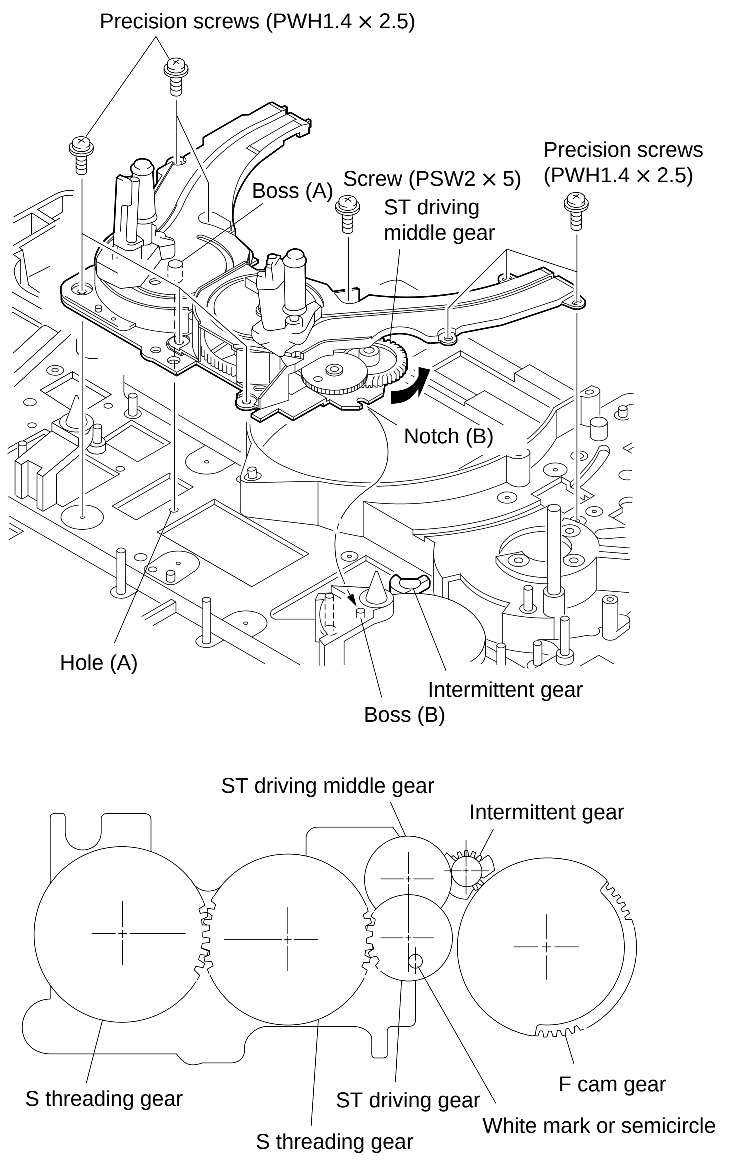
(4) If the ST driving middle gear does not engage with the intermittent gear, turn the manual eject gear clockwise till they engage.
(The intermittent gear turns together with the manual eject gear.)

(5) Tighten the eight precision screws and the screw.

Note

Do not scratch the stationary heads with a screwdirver.

(6) If the intermittent gear had be turned in the step (4), turn the manual eject knob counter-clockwise to return the cam gear to the original position of the step (1).


Precision screws (PWH1.4 × 2.5)
Precision screws
(PWH1.4 × 2.5)
Boss (A)
Screw (PSW2 × 5)
ST driving
middle gear
Notch (B)
Hole (A)
Intermittent gear
Boss (B)
ST driving middle gear
Intermittent gear
S threading gear
ST driving gear
F cam gear
White mark or semicircle
S threading gear

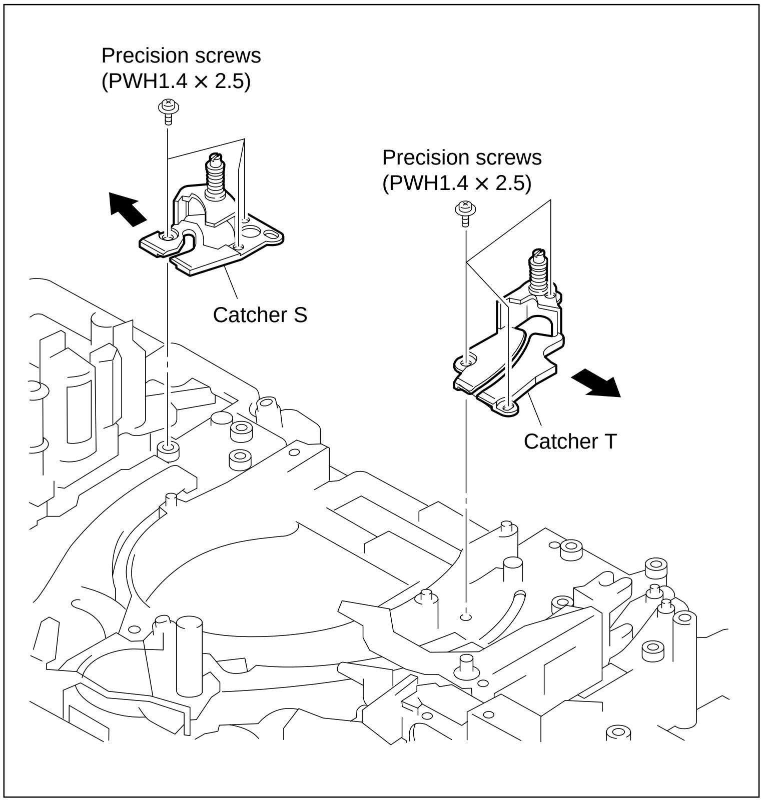
20. Catcher S/T installation

(1) Attach the catcher S using the three precision screws.

(2) Attach the catcher T using the three precision screws.

Note

Either catchers must be installed while pushing them in the direction of the arrow.


Precision screws
(PWH1.4 × 2.5)
Precision screws
(PWH1.4 × 2.5)
Catcher S
Catcher T

21. Drawing arm gear installation

(1) Clean the shaft shown in the figure using a cleaning cloth moistened with cleaning fluid.

(2) Apply a half drop of oil to the shaft.

(3) While aligning the longitudinal hole of the drawing arm gear with the hole (A) on the mechanical chassis shown in figure, put the drawing arm gear onto the shaft.

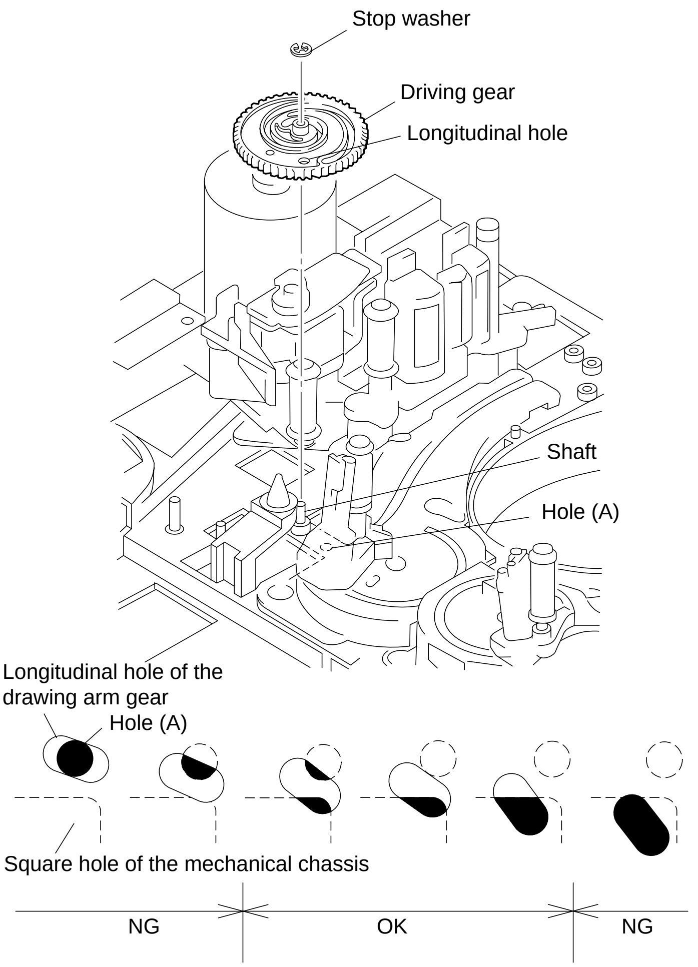
(4) Attach the drawing arm gear using a new stop washer (3-726-829-01).

22. T arm installation

Refer to Section “2-24. T Link and T Arm Assembly Replacement”.

23. S arm installation

Refer to Section “2-23. S Arm Assembly Replacement”.


Stop washer
Driving gear
Longitudinal hole
Shaft
Hole (A)
Longitudinal hole of the drawing arm gear
Hole (A)
Square hole of the mechanical chassis
NG
OK
NG

Half part or more of the round hole is visible through the longitudinal hole. Square hole is invisible.

Half part or more of the longitudinal hole overlaps with the square hole.

24. Connection of brush connector

Connect the harness that is removed in the step "3. Disconnection of brush connector" to the connector of the brush board.

Note

Ensure that the brush contacts the groove of the slip ring completely.

25. Drum installation

(1) Clean the contact surfaces of the drum assembly and chassis using a cleaning cloth moistened with cleaning fluid.

Notes

- When holding the drum assembly, be sure to hold the no video heads portion.
- Take care not to contact the drum assembly with the stationary heads.

(2) Connect the three connectors (CN1, CN2 and CN3) to the board at the bottom of the drum.
(3) Align the two positioning pins of the chassis with the holes of the drum assembly.
(4) Move the drum assembly slightly to check that the drum assembly fit in the positioning pins.
(5) Tighten the three screws.

26. Drum head cleaner assembly installation

Connect the video head cleaner assembly. (Refer to Section "2-8. AHC Roller Assembly Replacement".)

27. Unthread guide plate installation

Attach the unthread guide plate using the two screws.

28. SE-510 board installation

Attach the SE-510 board using two screws.

29. Cleaning of the heads and the tape running surface

Cleaning the following portions using a cleaning cloth moistened with cleaning fluid.

- Video heads
- Tape running surface of the upper drum
- Lead of the lower drum and tape running surface
- All tape guides and pinch roller

After cleaning, be sure to wipe the relevant portions using a dry cleaning cloth. (Refer to the Maintenance Manual Part 1, Section "5-2. Cleaning".)

Adjustment after Replacement

30. S2/T2 guide slantness check

(Refer to Section 3-3-3.)

31. Tape path adjustment

(Refer to Section 3-1-1)

2-26. Reel Table (S/T) Replacement

Overview

Replacement

Reel table removal
Reel table installation (1)
Cassette reference plate installation
Reel table height adjustment
Reel table installation (2)

Note

A total of three each polywashers of thickness 0.25 mm are inserted at the top and bottom of either S and T reel tables (or, a total of four each polywashers: two washers of 0.25 mm and two washers of 0.13 mm). These polywashers are used for the height adjustment of the reel table. After adjusting, put the polywasher(s) that has not been used onto the reel table. Be sure to reattach the original number (three or four) of the polywashers.

Preparation

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section “1-6. Removing and Reinstalling the Cassette Compartment”.)
4. Set the position of the reel table to the L cassette position.
   (Refer to Section “2-1-5. L Cassette Position, S Cassette Position and Intermediate Position”.)

Tools

• Cassette reference plate (L) :	J-6326-530-A
• Reel table height gauge (MW-935) :	J-6329-350-A
• Cleaning cloth :	3-184-527-01
• Cleaning fluid :	9-919-573-01

1. Reel table removal

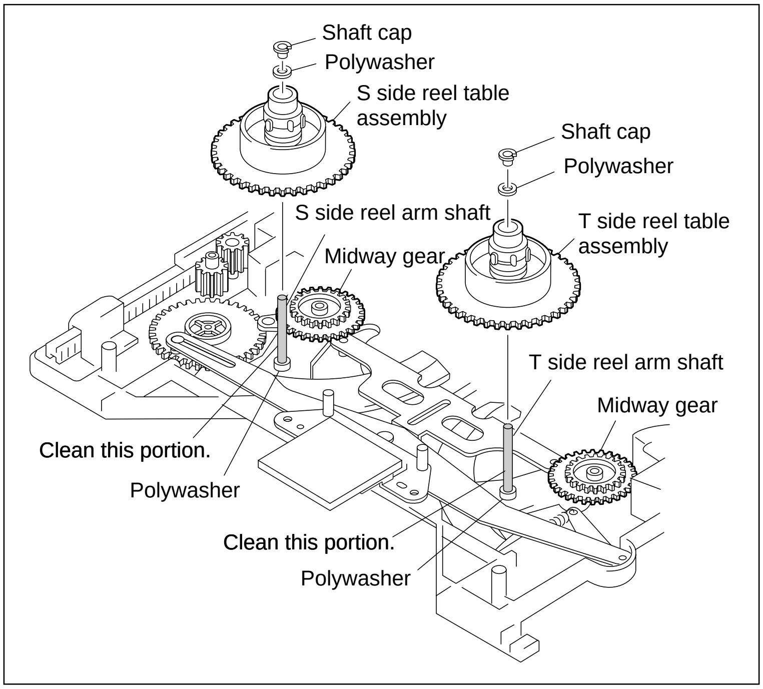
(1) While holding the reel table, remove the shaft cap using a pair of tweezers.

(2) Lift up the reel table to remove it from the reel arm shaft.

Note

The polywasher is removed on the reel table upon removing the reel table. Be careful not to lose it.

Also, the polywasher could be adhered to the bottom of the reel table. In this case, remove the polywasher from the bottom of the reel table and attach it back onto the reel arm shaft; this facilitates height adjustment after replacement.


Shaft cap
Polywasher
S side reel table assembly
Shaft cap
Polywasher
S side reel arm shaft
T side reel table assembly
Midway gear
T side reel arm shaft
Midway gear
Clean this portion.
Polywasher
Clean this portion.
Polywasher

2. Reel table installation (1)

(1) Clean the reel arm shaft using a cleaning cloth moistened with cleaning fluid.

(2) Insert a new reel table onto the reel arm shaft while engaging it with the midway gear.

Note

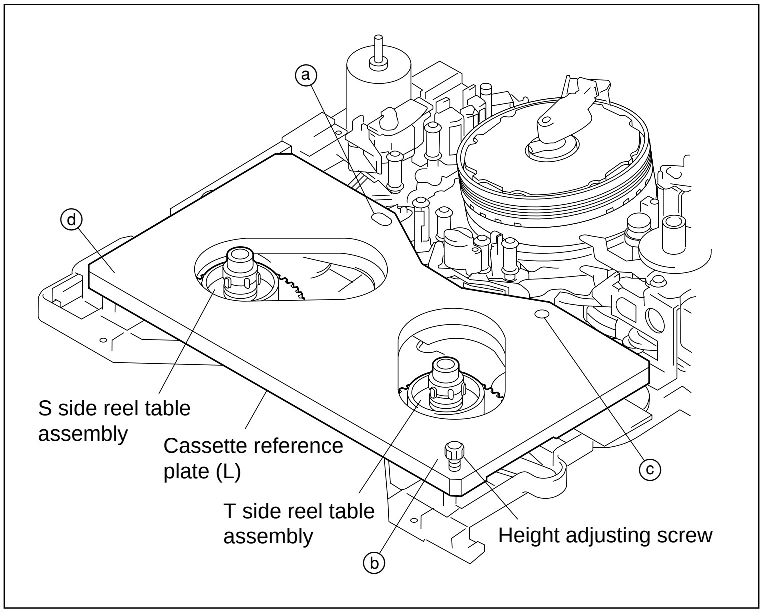
If the polywasher in the reel shaft is worn out or damaged, replace it with a new one.

3. Cassette reference plate installation

(1) Place the cassette reference plate (L) in the position for placing the L cassette.

(2) Push points ⓐ, ⓑ, ⓒ and ⓓ with your finger to check the slant. If the point ⓐ or ⓑ rattles, turn the height adjusting screw clockwise. If the point ⓒ or ⓓ rattles, turn the height adjusting screw counterclockwise to make the plate flat.

(3) Clean the top surface of the cassette reference plate and all sides of the reel table height gauge using a cleaning cloth moistened with cleaning fluid.


ⓐ
ⓓ
S side reel table assembly
Cassette reference plate (L)
T side reel table assembly
ⓒ
Height adjusting screw
ⓑ

4. Reel table height adjustment

Note

S and T are engraved on the reel table height gauge. In the HDW-250, use the T engraved side of the gauge to adjust the height of either S and T reel tables.

(1) Place the reel table height gauge on the T reel side of the cassette reference plate (L) facing down on the T engraved side of the reel table height gauge.

(2) Move the reel table height gauge from the position A shown in the figure to the side of the T reel table, and make it touch the flange block of the T reel table slightly.

(3) Turn the T reel table while holding it slightly, and check that all sides of the flange meet the specifications.

(4) Move the reel table height gauge from the position B shown in the figure to the side of the T reel table, and make it touch the flange block of the T reel table slightly.

(5) Turn the T reel table while holding it slightly, and check that all sides of the flange meet the specifications.
If the height of the reel table flange does not meet the specifications, insert or remove polywashers under the reel table to adjust the height.

(6) Place the reel table height gauge on the S reel side of the cassette reference plate (L) facing down on the T engraved side of the reel table height gauge.

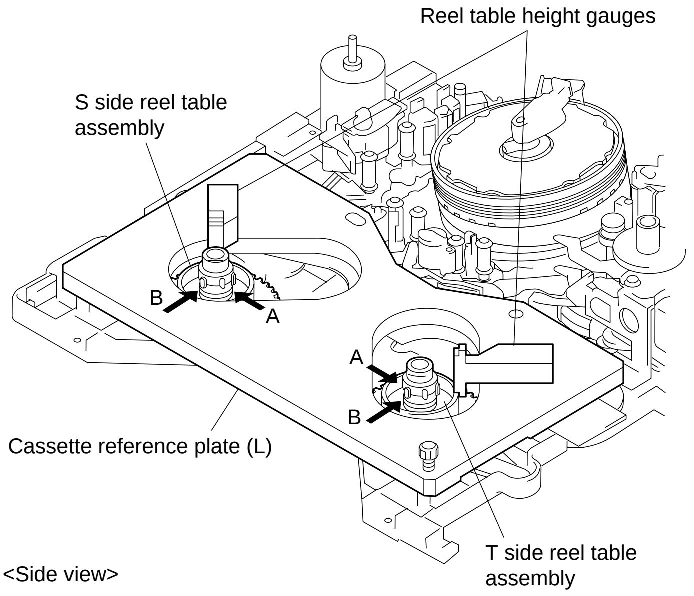
(7) Move the reel table height gauge from the position A shown in the figure to the side of the S reel table, and make it touch the flange block of the S reel table slightly.

(8) Turn the S reel table while holding it slightly, and check that all sides of the flange meet the specifications.

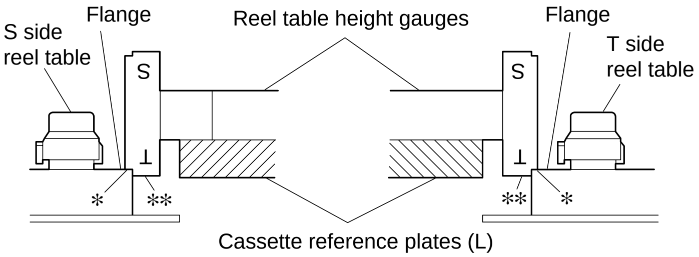
(9) Move the reel table height gauge from the position B shown in the figure to the side of the S reel table, and make it touch the flange block of the T reel table slightly.

(10) Turn the S reel table while holding it slightly, and check that all sides of the flange meet the specifications.
If the height of the reel table flange does not meet the specifications, insert or remove polywashers under the reel table to adjust the height.

(11) Set the reel table to the S cassette position, and then repeat steps (1) to (10).


Reel table height gauges
S side reel table assembly
B
A
A
B
Cassette reference plate (L)
T side reel table assembly

<Side view>



Spec.: The portion * shown in the illustration of the gauge must pass through the flange of the reel table and contact with the portion **.

- Polywasher for adjustment

Diameter	Thickness	Part No.
3.0	0.13	3-701-439-01
3.0	0.25	3-701-439-11

Unit : mm

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5. Reel table installation (2)

(1) Put the polywasher(s) that has not been used onto the reel table.
Be sure to reattach the original number (three or four) of the polywashers.

(2) Inset a shaft cap into the reel arm shaft to fasten the reel table.

(3) Remove the reel table height gauge and cassette reference plate (L).

2-27. FE Head Replacement

Overview

Replacement

Entrance head assembly removal
FE head replacement
Entrance head assembly installation
FE head installation position check
Cleaning the entrance head assembly

Check after replacement

Tape path adjustment (Refer to Section 3-1-1.)

CAUTION

Never contact the tape cleaner next to the CTL head with bare hand, as the sharp edge of the tape cleaner may injure your fingers.

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Remove the top panel.
   (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)

Tools

- Torque screwdriver bit (for M2) : J-6325-380-A
- Torque screwdriver (for 3 kg) : J-6325-400-A
- Cleaning cloth : 3-184-527-01
- Cleaning fluid : 9-919-573-01

Removal

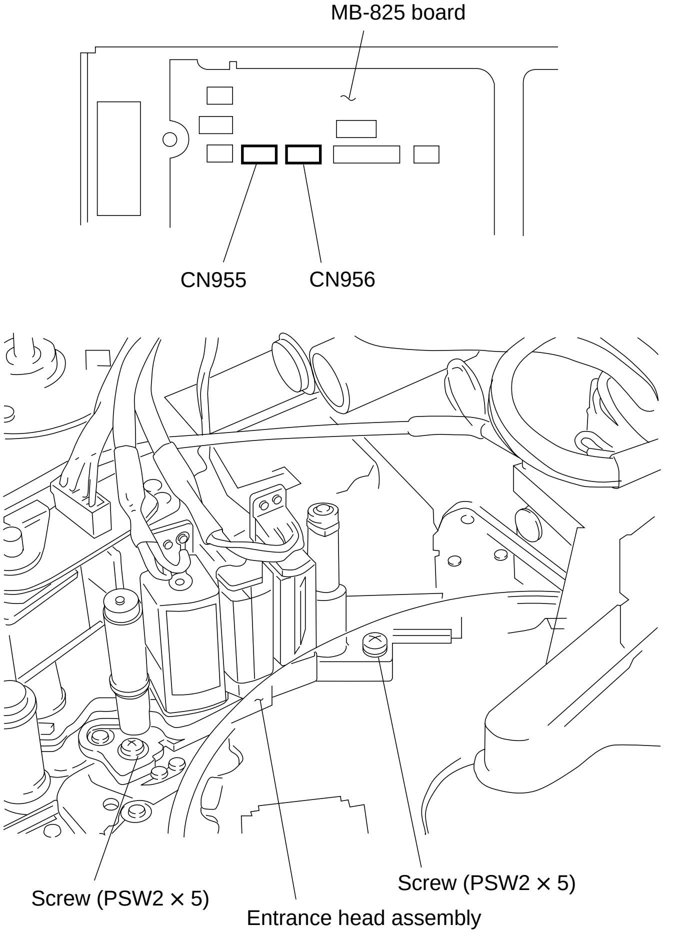
1. Entrance head assembly removal

(1) Disconnect the harnesses from the two connectors CN955 (CTL head) and CN956 (FE head) on the MB-825 board.

(2) Remove the two screws, and then remove the entrance head assembly from the unit.

Note

Be careful not to damage the video head, drum, CTL head, and tape guide or other peripheral parts with a screwdriver.


MB-825 board
CN955
CN956
Screw (PSW2 × 5)
Screw (PSW2 × 5)
Entrance head assembly

Installation

2. FE head replacement

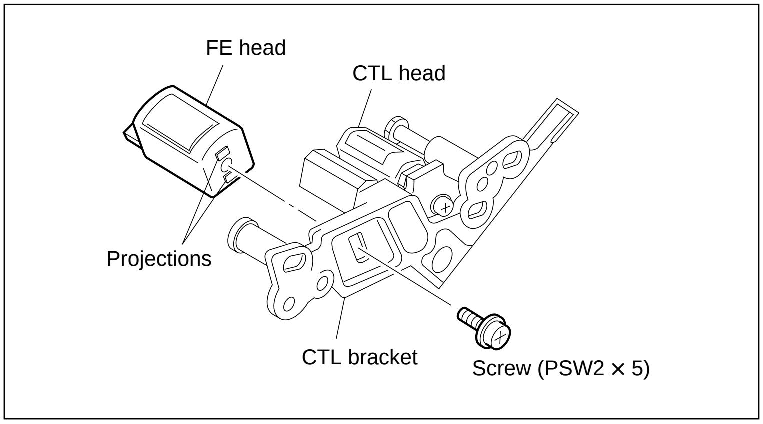
(1) Remove the screw from the bottom side of the FE head assembly to remove the FE head.

(2) Unsolder the two wires that are connected to the FE head.

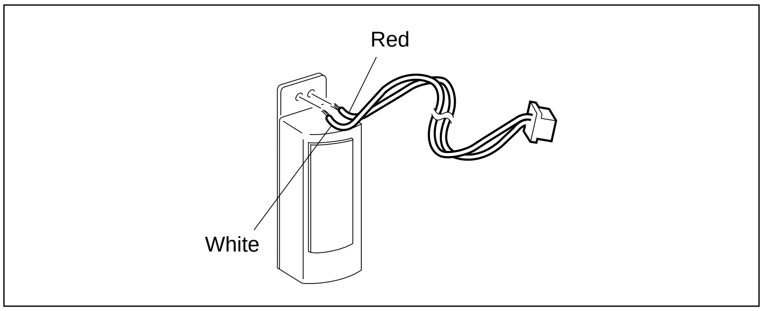
(3) Solder the two wires that were removed in step (2) to the printed wiring board of a new FE head.

Note

Be sure to solder each wire to the correct position.


FE head
CTL head
Projections
CTL bracket
Screw (PSW2 × 5)

(4) Insert the projections at the bottom of the new head into the hole of the CTL bracket properly, and then tighten the screw.

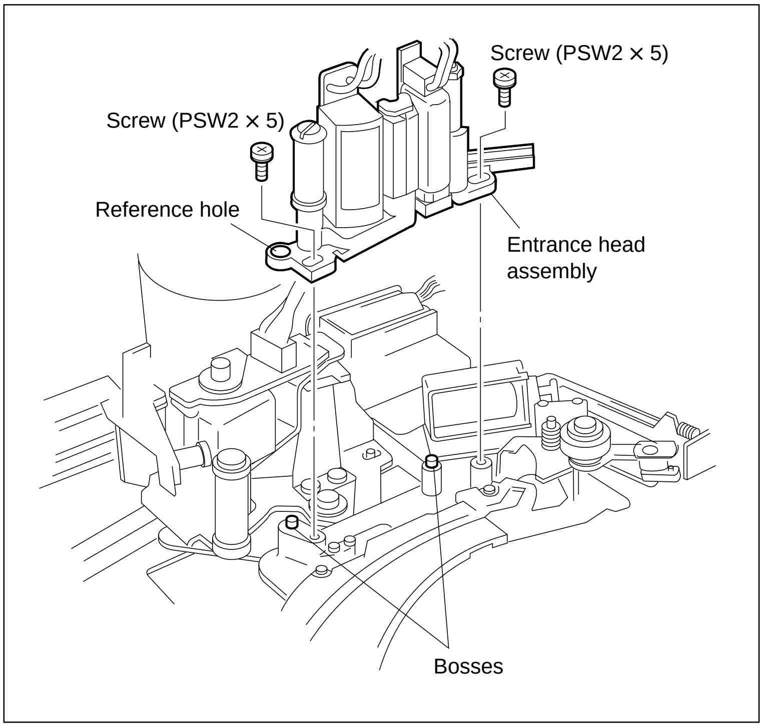


3. Entrance head assembly installation

(1) Insert the bosses of the chassis into the two reference holes of the entrance head assembly, and then fasten the entrance head assembly using the two screws.

(2) Connect the following harness connectors to the MB-825 board:

- CN955 : Harness connector of the CTL head
- CN956 : Harness connector of the FE head


Screw (PSW2 × 5)
Screw (PSW2 × 5)
Reference hole
Entrance head assembly
Bosses

4. FE head installation position check

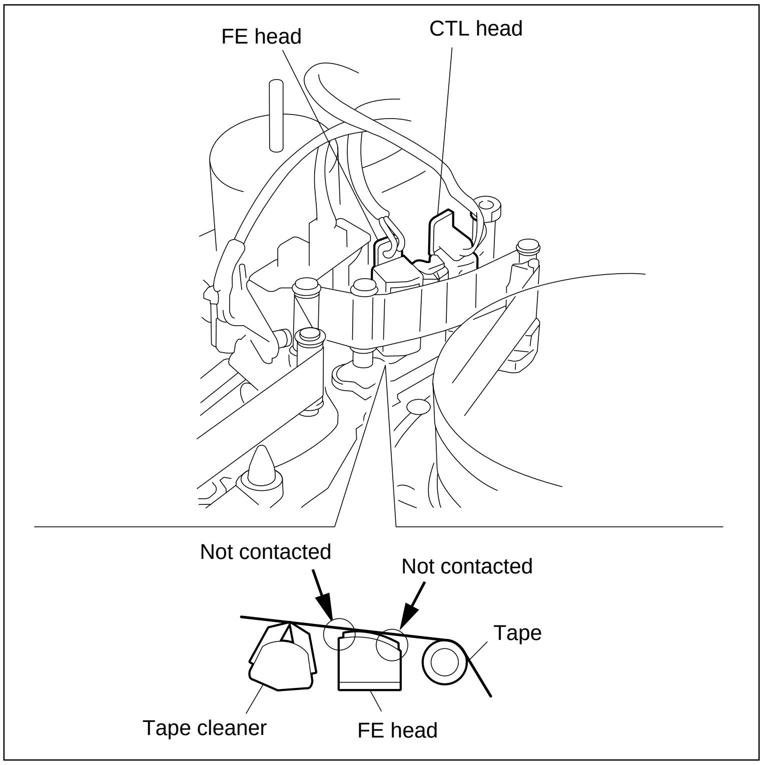
(1) Insert a cassette tape into the cassette compartment.

(2) While pulling the brake release lever with a red label, turn the manual eject gear clockwise while pushing it downward until the S slider reaches the S catcher.

(3) With the brake release lever is pulled, slightly turn the manual eject gear counterclockwise while pushing it downward to stretch the threaded tape.
Then, the tape is ejected from the cassette and it is threaded onto the FE head.

(4) Check to see that the tape is threaded without contacting the shoulders of the FE head.
If the specifications are not met, remove the entrance head assembly from the chassis and attach it to the CTL bracket again.

(5) With the brake release lever is pulled, turn the manual eject gear counterclockwise while pushing it downward.
Then, the unit enters the unthreading end mode, and the ejected tape is wound to the cassette.



5. Cleaning of the entrance head assembly

Clean the CTL head, erase head, tape cleaner and tape guide using a cleaning cloth moistened with cleaning fluid.

Notes

- After cleaning, be sure to wipe the parts with a dry cleaning cloth.
- Keep bare hands away from the tape cleaner during cleaning.

Check after Replacement

6. Tape path adjustment

(Refer to Section 3-1-1.)

2-28. Cleaning the Tape Cleaner

CAUTION

Never contact the tape cleaner with bare hand, as its sharp edge may injure your fingers.

Note

Avoid physical shock (dropping on the floor, etc.) to the tape cleaner. The edge could be damaged because the tape cleaner is made of hard materials. If an physical shock is applied, check the edge with a microscope.

Overview

Replacement

Tape cleaner removal
Tape cleaner installation
Operation check

Preparation

1. Put the unit into the unthreading end mode.
2. Turn off the power.
3. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)

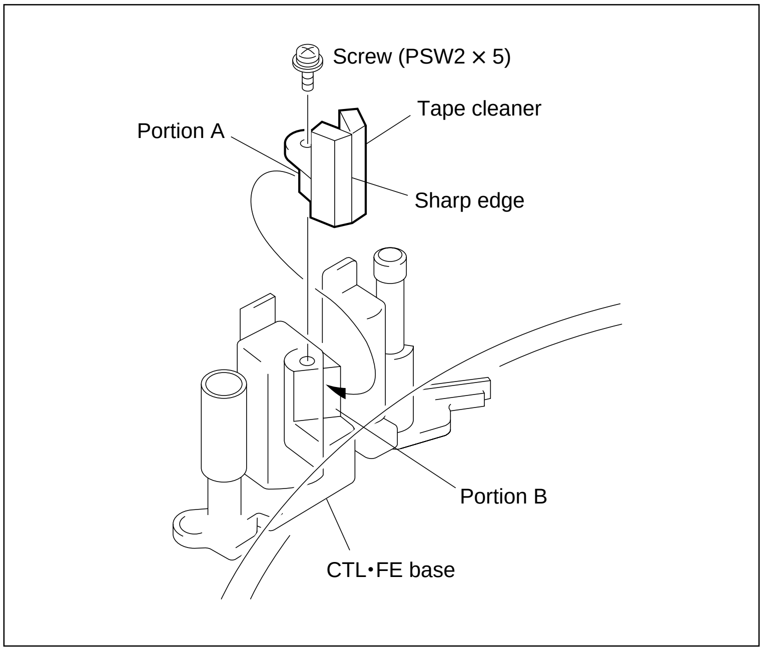
Tools

- Torque driver bit (for M2) : J-6325-380-A
- Torque driver (for 3 kg) : J-6325-400-A
- Locking compound

Removal

1. Tape cleaner removal

Remove the screw to remove the tape cleaner.



Installation

2. Tape cleaner installation

(1) Press portion A of the tape cleaner against portion B of the CTL•FE base.

(2) Fix the tape cleaner using one screw with locking compound is applyed onto its thread.
Tightening torque :
9×10^{-2} N•m (0.9 kgf•cm)

3. Operation check

(1) Turn on the power.

(2) With the top panel opened, insert a cassette tape and set it to the playback mode.

(3) Check that the tape runs while touching the tape cleaner.

2-29. Oscillation Gear Replacement

Overview

SE-510 board removal
Reel table removal
C support base removal
Midway gear removal
Sliding link removal
Oscillation gear removal
Oscillation gear installation
Sliding link installation
Midway gear installation
C support base installation
Reel table installation
SE-510 board installation

Notes

- To replace the midway gear, sliding link and reel arm holder, follow the procedure described in this section.
- The stop washer and E ring are required when replacing the oscillation gear. Before replacing the oscillation gear, prepare a new stop washer (3-676-387-00) and a new E ring (7-624-102-01).

Preparation

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section “1-6. Removing and Reinstalling the Cassette Compartment”.)
4. Set the unit to the L cassette position.
   (Refer to Section “2-1-5. L Cassette Position, S Cassette Position and Intermediate Position”.)

Tools

• Torque screwdriver bit (for M2) :	J-6325-380-A
• Torque screwdriver (for 3 kg) :	J-6325-400-A
• Diamond oil NT-68 :	7-661-018-18
• Locking compound	

Removal

1. SE-510 board removal

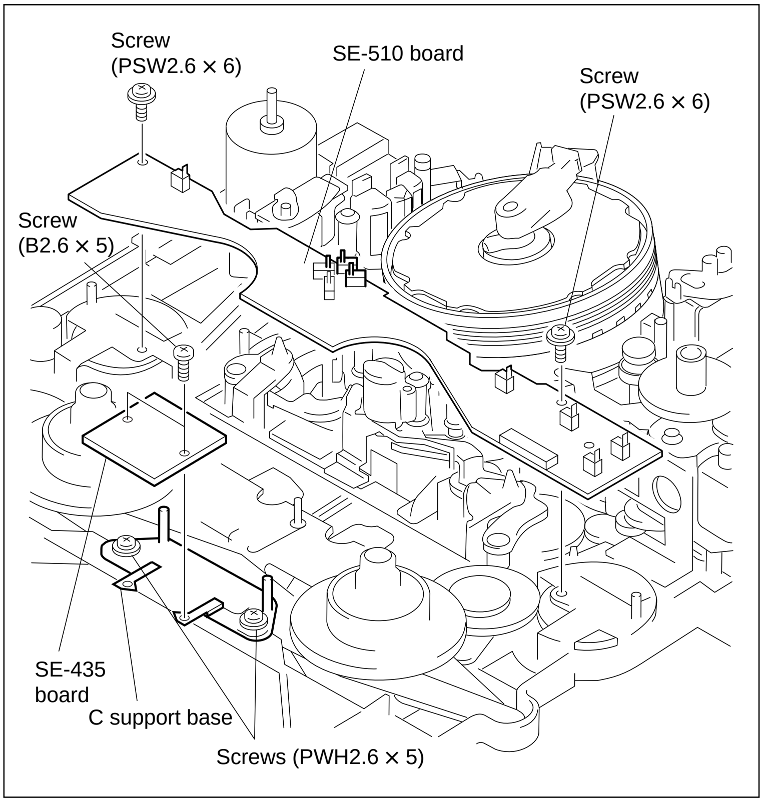
Remove the two screws, and then remove the SE-510 board.

2. Reel table removal

Remove the reel tables of the S side and T side. (Refer to Section “2-26. Reel Table (S/T) Replacement”.)

3. C support base removal

(1) Remove the two screws, and then remove the SE-435 board.
(2) Remove the two screws, and then remove the C support base.

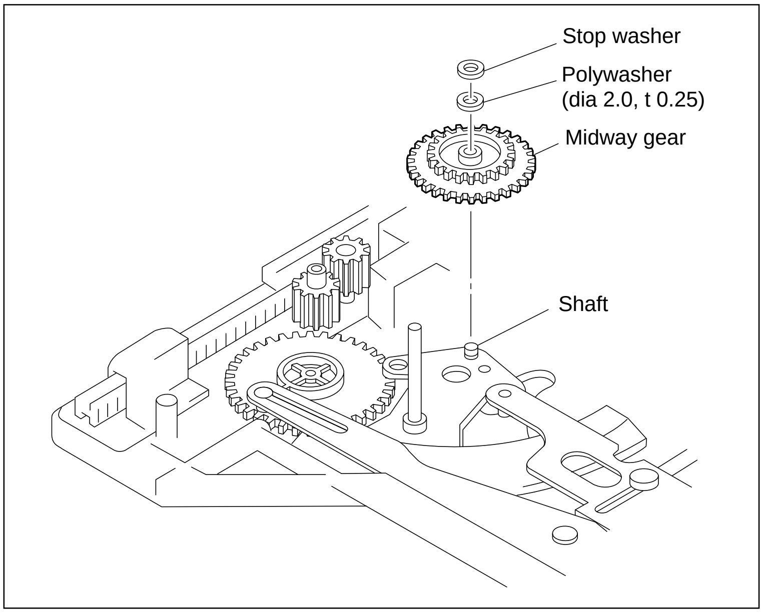

Screw
(PSW2.6 × 6)
SE-510 board
Screw
(PSW2.6 × 6)
Screw
(B2.6 × 5)
SE-435
board
C support base
Screws (PWH2.6 × 5)

4. Midway gear removal

Remove the stop washer and the polywasher, and then remove the midway gear of both S and T sides.

Note

If the midway gear of the T side cannot be removed easily, remove only the stop washer.


Stop washer
Polywasher
(dia 2.0, t 0.25)
Midway gear
Shaft

5. Sliding link removal

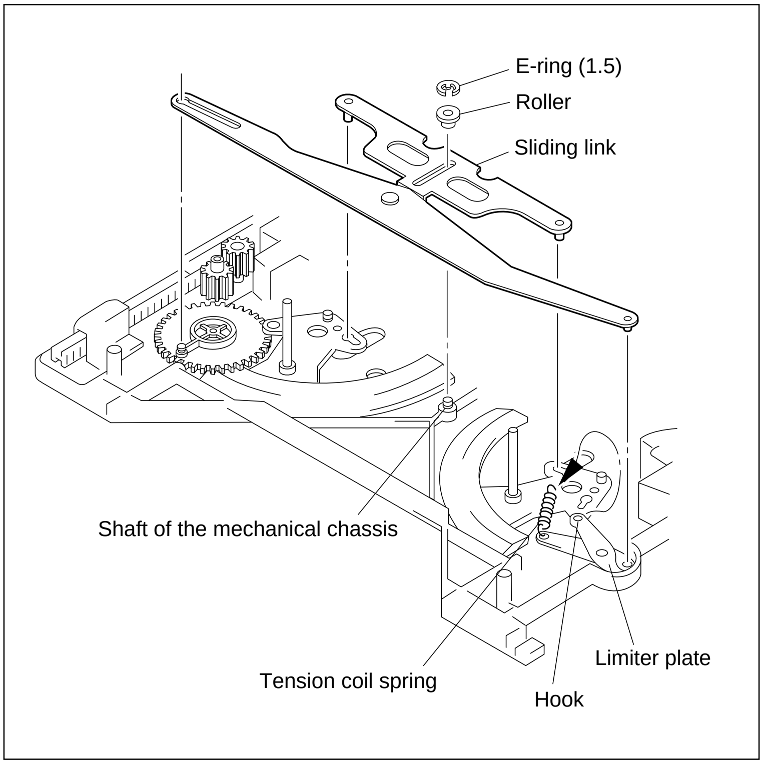
(1) Remove the E-ring (1.5) to remove the roller.

(2) Unhook the tension coil spring from the limiter plate.

(3) Remove the sliding link while moving it from side to side.

Notes

- To prevent deformation of the sliding link, do not apply excessive force to it during removing.
- Do not remove the polywasher, leave it in the shaft of the mechanical chassis.


E-ring (1.5)
Roller
Sliding link
Shaft of the mechanical chassis
Tension coil spring
Hook
Limiter plate

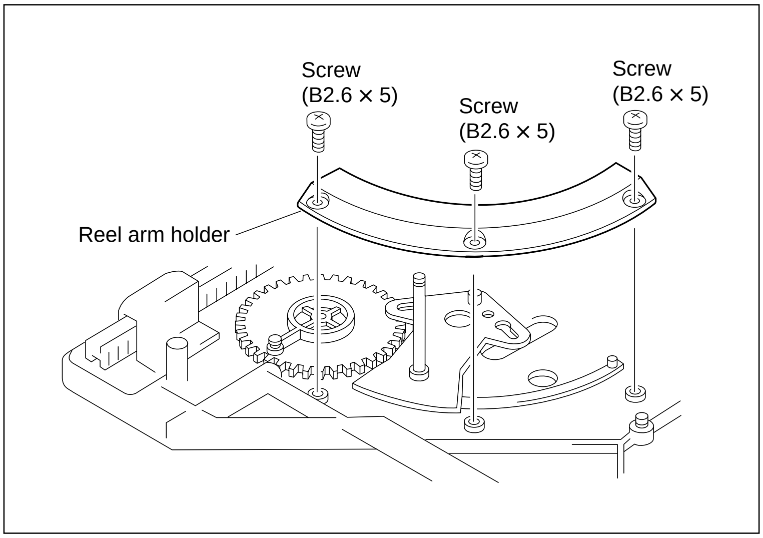
6. Oscillation gear removal

(1) Remove the three screws and remove the reel arm holder on the S side.

Note

Do not remove the reel arm holder on the T side.

(2) Remove the stop washer to remove the oscillation gear.


Screw
(B2.6 × 5)
Screw
(B2.6 × 5)
Screw
(B2.6 × 5)
Reel arm holder

Installation

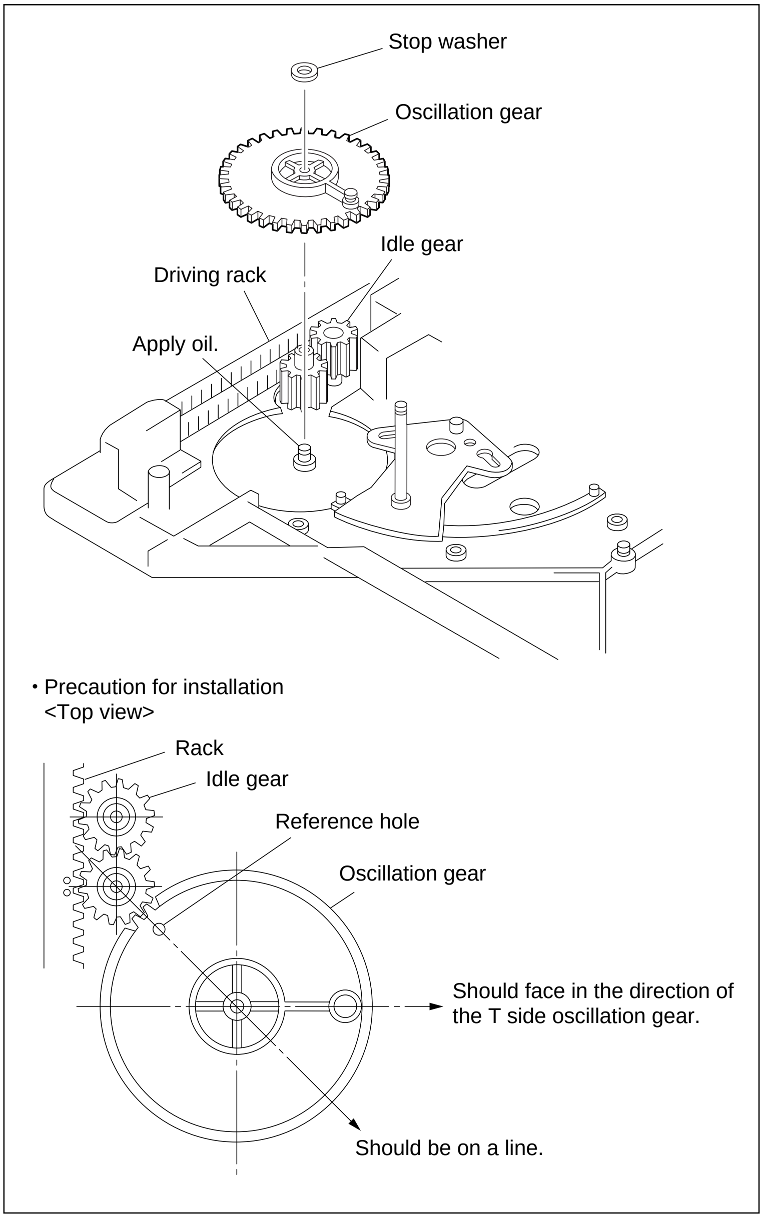
7. Oscillation gear installation

(1) Turn the idle gear so that the upper and lower driving racks are joined (center position).

(2) Apply half a drop of oil to the shaft which the oscillation gear is to be installed.

(3) While aligning the phase of the oscillation gear as shown in the figure, attach the oscillation gear using a new stop washer (3-676-387-00).

(4) Attach the reel arm holder on the S side using two screws with a locking compound.


Stop washer
Oscillation gear
Idle gear
Driving rack
Apply oil.
• Precaution for installation
<Top view>
Rack
Idle gear
Reference hole
Oscillation gear
Should face in the direction of the T side oscillation gear.
Should be on a line.

http://getMANUAL.com

8. Sliding link installation

(1) Hook the tension coil spring on the limiter plate.

Note

Do not press the hook of the tension coil spring.

(2) Turn the idle gear clockwise fully, and then set the driving rack to the L cassette position.

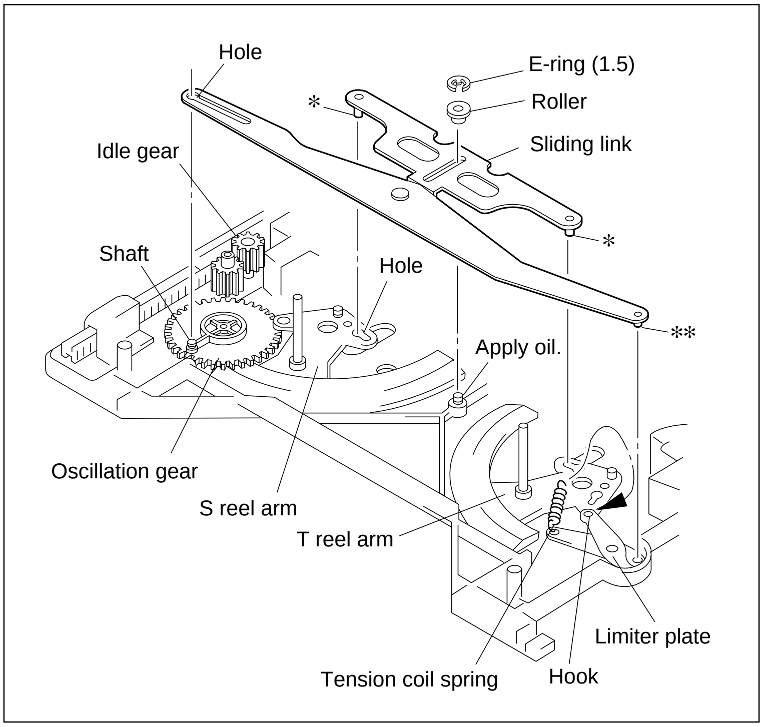
(3) Apply half a drop of oil to the shaft of the mechanical chassis shown in the figure.

(4) Fit the hole of the sliding link shown in the figure over the shaft of the oscillation gear.

(5) While turning the oscillation gear, align the portion marked * (on the right and left sides) with the holes on the S side and T side of the reel arm. In addition, align the portion marked ** with the cut-out of the limiter plate.

(6) Put the roller through the shaft of the mechanical chassis facing in the direction shown in the figure, and then fasten it using a new E-ring (7-624-102-01).

(7) Turn the idle gear to turn the oscillation gear from the L cassette position to the S cassette position, and check that a click is heard.



9. Midway gear installation

Attach the midway gears on the S side and T side using a new stop washer (3-676-387-00).

10. C support base installation

Attach the C support base to the mechanical chassis using the two screws.

11. Reel table installation

Attach the reel tables on the S side and T side and adjust the reel table height.
(Refer to Section “2-26. Reel Table (S/T) Replacement”.)

12. SE-510 board installation

Attach the SE-510 board using the two screws.

2-30. Tape Guide Replacement

This section describes how to replace the tape guide as shown below.

- S2 guide
- S3 guide
- S5 (tension regulator) guide
- T2 guide
- T3 (T drawing) guide
- T4 guide

Overview

Replacement

Tape guide removal
Tape guide installation

Adjustment after replacement

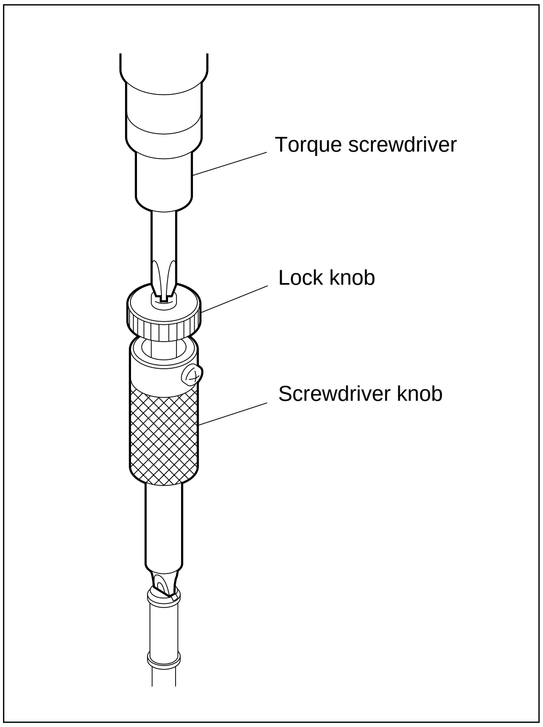
Tape guide height temporary adjustment
T2 guide height adjustment (Refer to Section 3-2-9.)
(When the T2 guide is replaced)
Tape path adjustment (Refer to Section 3-1-1.)
(When the S2, S3 or S5 guide is replaced)
Alignment tape tracking check (Refer to Section 3-2-10.)
(When the T2, T3 or T4 guide is replaced)

Precautions

- Do not change the height of the S4 guide because the S4 guide (S drawing) is the reference for the tape. When the S4 (S drawing) guide needs to be replaced, replace the S arm assembly. (Refer to Section "2-23. S Arm Assembly Replacement".)
- After two or more tape guides are replaced, perform the adjustment whenever one tape guide is replaced. It is very difficult to adjust several tape guides simultaneously.
- Tighten the setscrews in the upper side of the tape guide to the following torque:

  9×10^{-2} N•m (0.9 kgf•cm)

  Before fully tightening the setscrews in the upper side of the tape guide to the specified torque, attach the torque driver set to the specified torque to the cross-headed screw of the tape guide adjusting screwdriver as shown in the figure.



Preparation

- Put the unit into the unthreading end mode.
- Turn off the power.
- Remove the top panel. (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)

Tools

• Driver (tool) TG adjustment (45) :	J-6322-420-A
• Torque driver bit (for M2) :	J-6325-380-A
• Torque driver (for 3 kg) :	J-6325-400-A
• Cassette reference plate :	J-6326-530-A
• S side gauge :	J-6326-940-A
• Cleaning cloth :	3-184-527-01
• Thickness gauge :	9-911-053-00
• Cleaning fluid :	9-919-573-01

Note

If the bit for the set screw of the tape guide adjusting screwdriver (45) is damaged, repair it using the following spare bit:

- Tool, 0.89 bit : J-6322-420-3

<S2, S3 and T2 guides replacement>

Removal

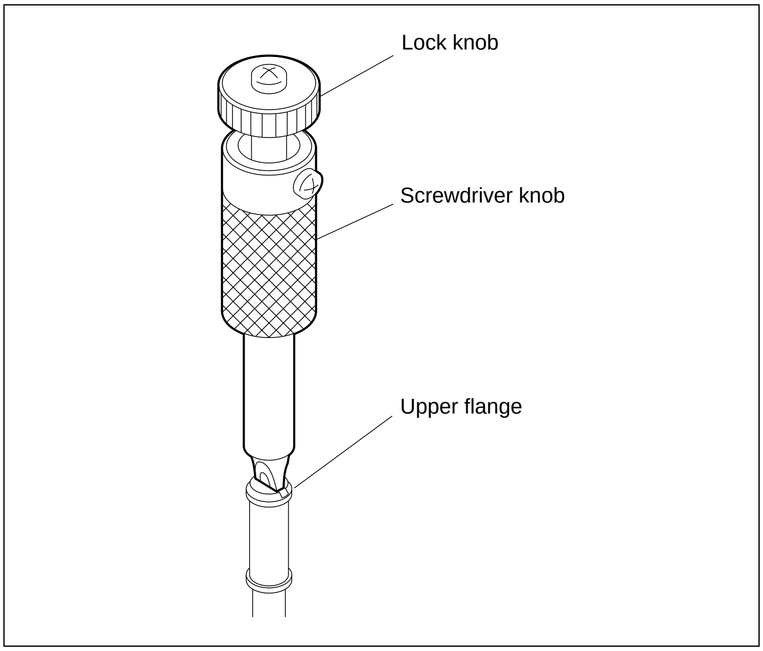
1. Tape guide removal

(1) Attach the tape guide adjusting screwdriver to the upper flange as shown in the figure.

(2) Turn the lock knob counterclockwise slightly to loosen the setscrew.

Note

When replacing only the guide roller, do not loosen the setscrew too much to facilitate the adjustment after replacement.



(3) Turn the screwdriver knob counterclockwise, and then remove the upper flange from the guide shaft.

(4) Pull the guide roller out from the guide shaft. Then, the lower flange and compression coil spring are removed.

Installation

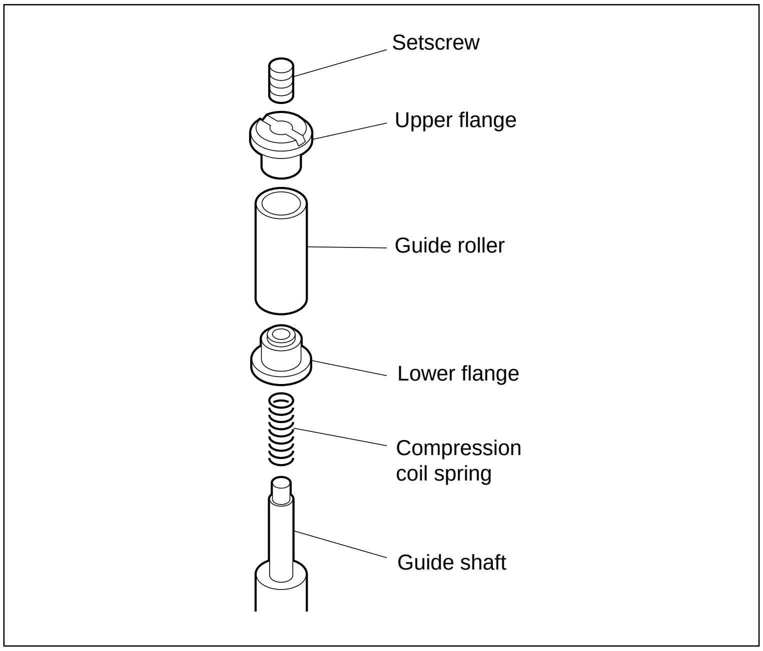
2. Tape guide installation (S2, S3 and T2 guides)

(1) Put the compression coil spring through the guide shaft.
(2) Put the lower flange through the guide shaft.
(3) Put the guide roller through the guide shaft.
(4) Push the setscrew into the upper flange.

Note

When the upper flange and setscrew are re-used, step (4) is unnecessary.

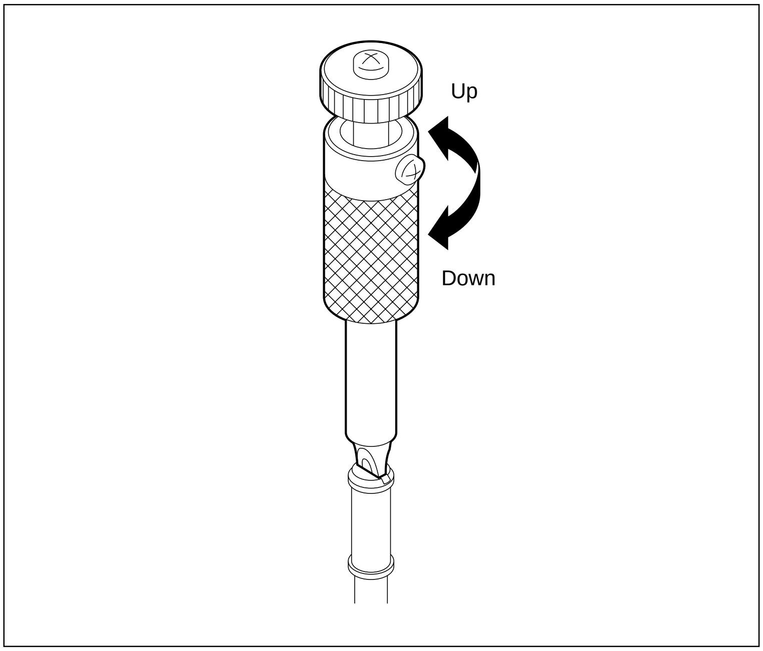
(5) Turn the upper flange clockwise to attach it to the guide shaft.



Adjustment after Replacement

3. Tape guide height temporary adjustment (S2, S3 and T2 guides)

(1) Turn on the power.
(2) Insert a commercially available cassette tape from the inlet, and set the unit to the playback mode.
(3) Adjust the height of the replaced tape guide using the tape guide adjusting screwdriver until the specifications are satisfied.
(4) Tighten the setscrew to the specified torque.
Tightening torque :
9×10^{-2} N•m (0.9 kgf•cm)



Specifications :

- **S2 guide**
  Should run in contact with the tape or upper flange.
- **S3 guide**
  Should run in contact with the tape or upper flange.
- **T2 guide**
  Should run in contact with the tape or upper flange.
- **T3 guide**
  Should run in contact with the tape or lower flange.

4. T2 guide height adjustment (when the T2 guide is replaced)

(Refer to Section 3-2-9.)

5. Tape path adjustment

(Refer to Section 3-1-1.)
(After the S2, S3 or S5 guide is replaced)

Alignment tape tracking check

(Refer to Section 3-2-10.)
(After the T2, T3 or T4 guide is replaced)

<T3 guide replacement>

Removal

1. Tape guide removal

(1) Attach the tape guide adjusting screwdriver to the upper flange as shown in the figure.

(2) Turn the lock knob counterclockwise slightly to loosen the setscrew.

Note

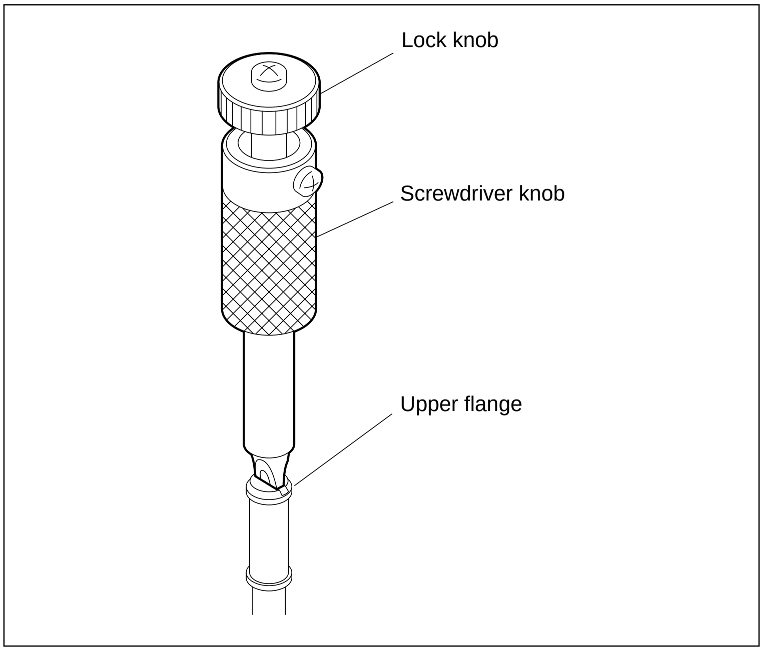
When replacing only the guide roller, do not loosen the setscrew too much to facilitate the adjustment after replacement.

(3) Turn the screwdriver knob counterclockwise to remove the upper flange from the guide shaft.

(4) Pull the guide roller out from the guide shaft. Then, the lower flange and compression coil spring are removed.

Note

When the T3 guide is replaced, the spacer T4 (A) and spacer T4 (B) are also removed.


Lock knob
Screwdriver knob
Upper flange

Installation

2. Tape guide installation (T3 guide)

(1) Put the compression coil spring through the guide shaft.

(2) Put the lower flange through the guide shaft.

(3) Pass the spacer T4 (B) (made of brass, gold color) through the guide shaft.

(4) Put the guide roller through the guide shaft while facing the side of the bearing downward.

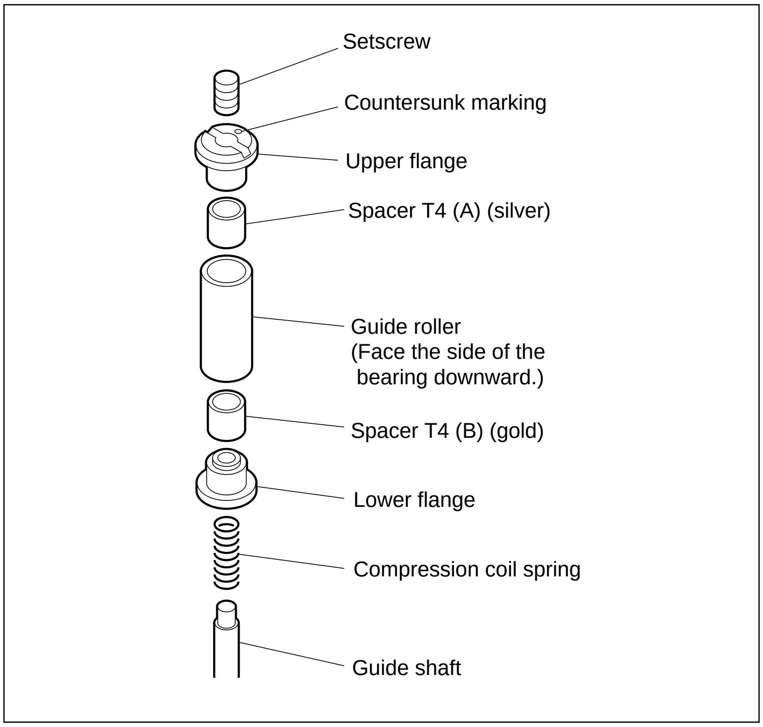
(5) Pass the spacer T4 (B) (made of stainless steel, silver color) through the guide shaft.

(6) Push the setscrew into the upper flange.

Note

When the upper flange and the setscrew are re-used, step (6) is not necessary.

(7) Turn the upper flange clockwise to attach it to the guide shaft.


Setscrew
Countersunk marking
Upper flange
Spacer T4 (A) (silver)
Guide roller
(Face the side of the
bearing downward.)
Spacer T4 (B) (gold)
Lower flange
Compression coil spring
Guide shaft

Adjustment after Replacement

3. Alignment tape tracking check

(Refer to Section 3-2-10.)

<S5 guide replacement>

Removal

1. Tape guide removal

(1) Attach the tape guide adjusting screwdriver to the upper flange as shown in the illustration.

(2) Turn the lock knob counterclockwise slightly to loosen the setscrew.

Note

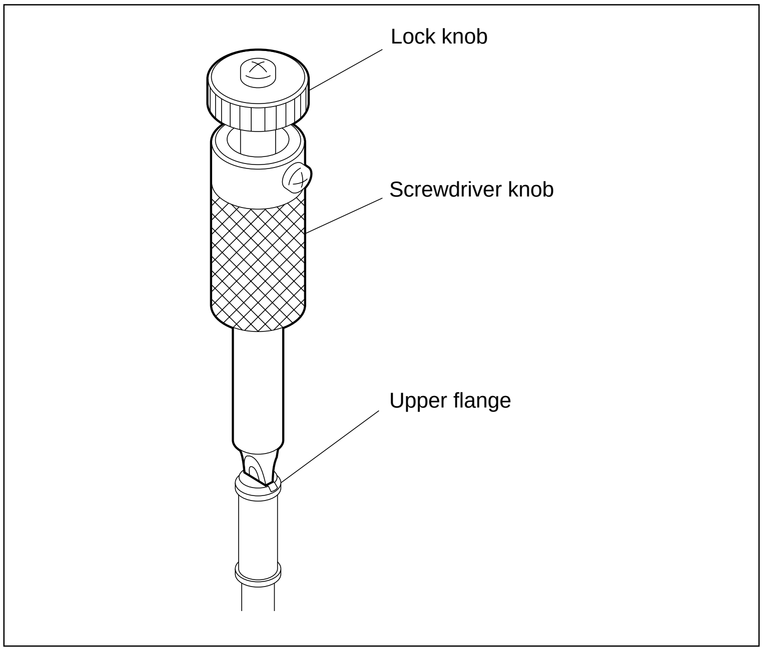
When replacing only the guide roller, do not loosen the setscrew too much to facilitate the adjustment after replacement.

(3) Turn the screwdriver knob counterclockwise to remove the upper flange from the guide shaft.

(4) Pull the guide roller out from the guide shaft. Then, the lower flange and compression coil spring are removed.

Note

When the S5 (tension regulator) guide is replaced, the two rollers C are also removed.


Lock knob
Screwdriver knob
Upper flange

Installation

2. Tape guide installation (S5 guide)

(1) Put the compression coil spring through the guide shaft.

(2) Put the lower flange through the guide shaft.

(3) Put the roller C through the guide shaft.

(4) Put the guide roller through the guide shaft.

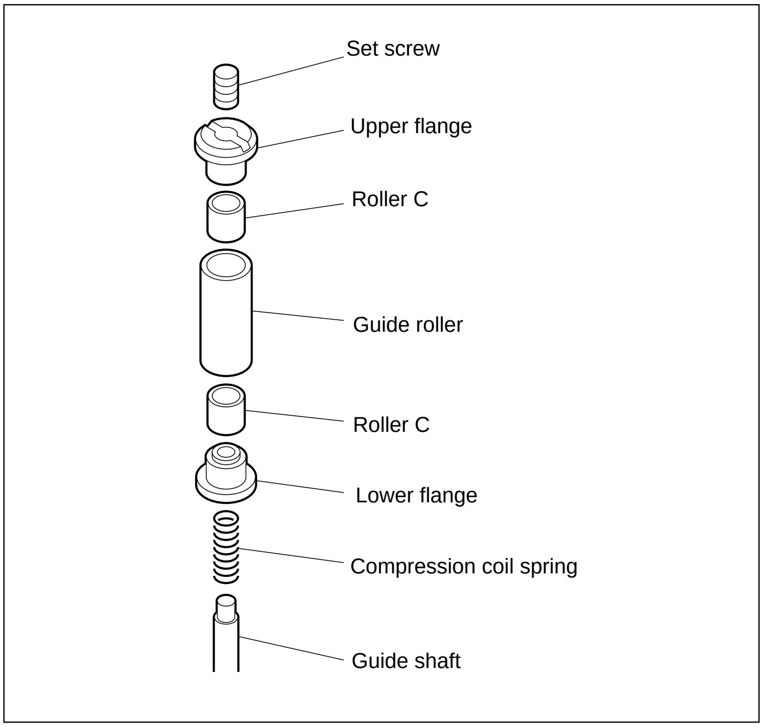
(5) Put the roller C through the guide shaft.

(6) Push the setscrew into the upper flange.

Note

When the upper flange and setscrew are reused, step (6) is unnecessary.

(7) Turn the upper flange clockwise to attach it to the guide shaft.


Set screw
Upper flange
Roller C
Guide roller
Roller C
Lower flange
Compression coil spring
Guide shaft

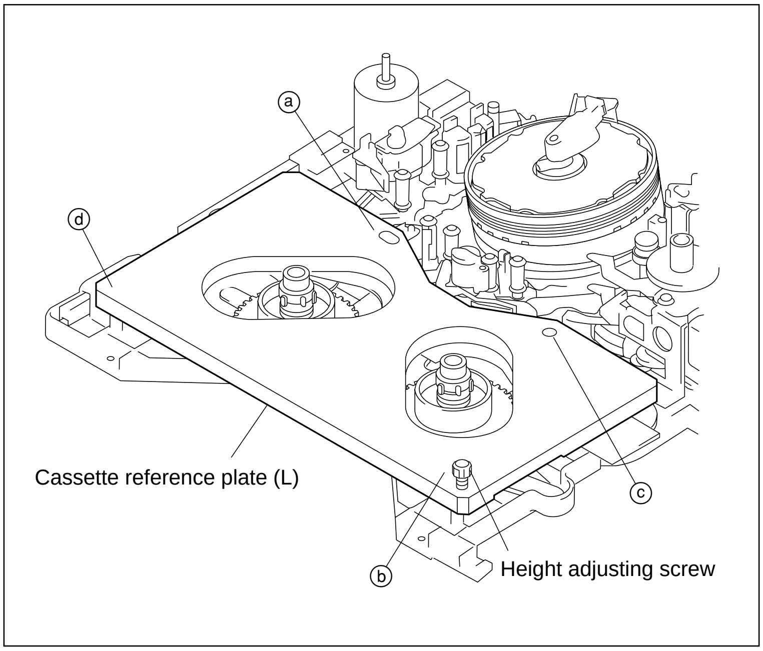
Adjustment after Replacement

3. Tape guide height temporary adjustment (S5 guide)

(1) Place the cassette reference plate (L) at the position of the L cassette.

(2) Push points ⓐ, ⓑ, ⓒ and ⓓ with your finger to check the slant. If the point ⓐ or ⓑ rattles, turn the height adjusting screw clockwise. If the point ⓒ or ⓓ rattles, turn the height adjusting screw counterclockwise to make the plate flat.

(3) Clean the top surface of the cassette reference plate (L) and all surfaces of the reel table height gauge using a cleaning cloth moistened with cleaning fluid.


ⓐ
ⓓ
Cassette reference plate (L)
ⓒ
ⓑ
Height adjusting screw

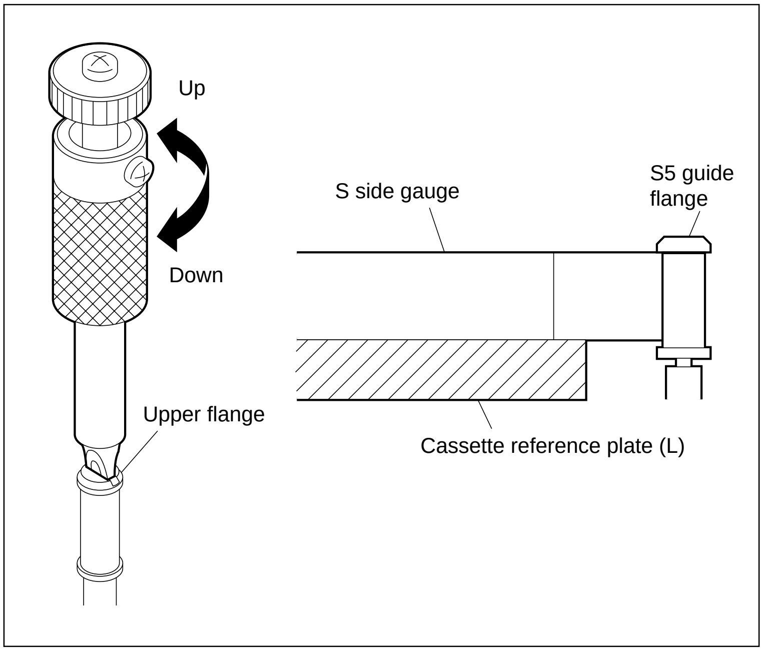
(4) Place the S side gauge on the cassette reference plate (L).

(5) Turn the upper flange of the S5 guide counterclockwise until the upper flange is positioned above the top surface of the S side gauge.

(6) Move the S side gauge to the side of the S5 guide and make it touch the guide roller slightly.

(7) Turn the screwdriver knob of the tape guide adjusting screwdriver clockwise slowly until the upper flange touches the top surface of the S side gauge.

(8) Tighten the setscrew to the specified tightening torque.
Tightening torque :
9×10^{-2} N•m (0.9 kgf•cm)


Up
Down
Upper flange
S side gauge
S5 guide flange
Cassette reference plate (L)

4. Tape path adjustment

(Refer to Section 3-1-1.)

<T4 guide replacement>

Removal

1. Tape guide removal

(1) Attach the tape guide adjusting screwdriver to the upper flange as shown in the illustration.

(2) Turn the lock knob counterclockwise slightly to loosen the setscrew.

Note

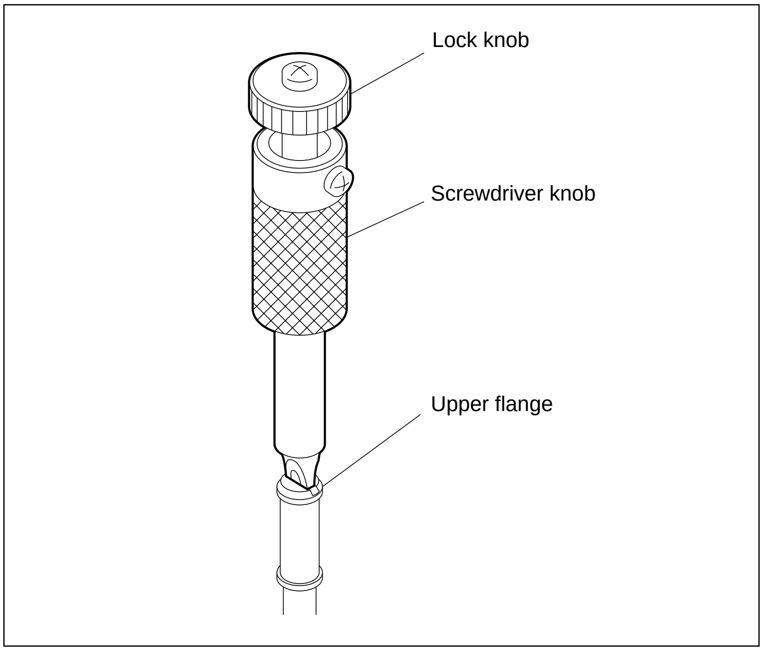
When replacing only the guide roller, do not loosen the setscrew too much to facilitate the adjustment after replacement.

(3) Turn the screwdriver knob counterclockwise to remove the upper flange from the guide shaft.

(4) Pull the guide roller out from the guide shaft. Then, the lower flange and compression coil spring are removed.

Note

When the T4 guide is replaced, the spacer T4 (A) and spacer T4 (B) are also removed.


Lock knob
Screwdriver knob
Upper flange

Installation

2. Tape guide installation (T4 guide)

(1) Put the compression coil spring through the guide shaft.

(2) Put the lower flange through the guide shaft.

(3) Pass the spacer T4 (B) (made of brass, gold color) through the guide shaft.

(4) Put the guide roller through the guide shaft facing the side of the bearing downward.

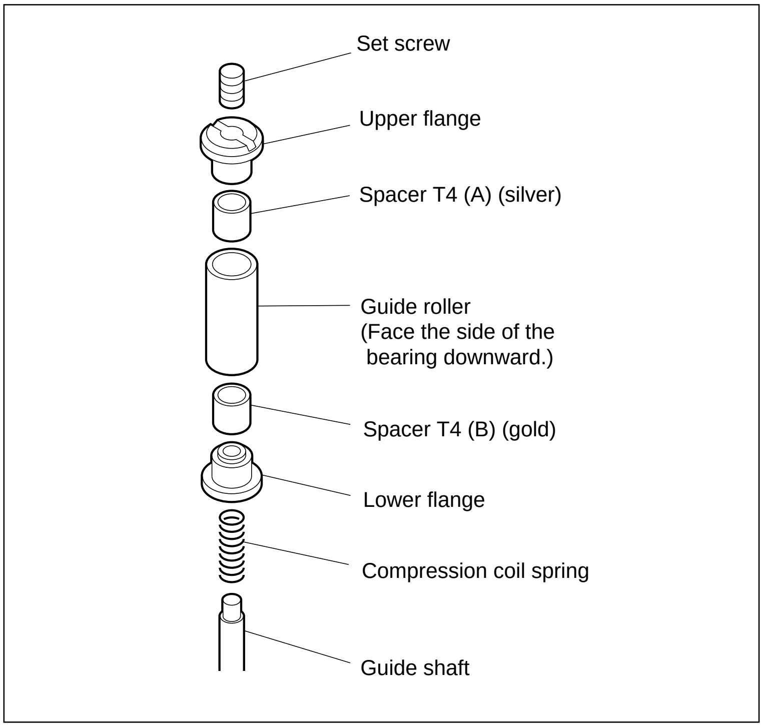
(5) Pass the spacer T4 (B) (made of stainless steel, silver color) through the guide shaft.

(6) Push the setscrew into the upper flange.

Note

When the upper flange and the set screw are re-used, step (6) is unnecessary.

(7) Turn the upper flange clockwise to attach it to the guide shaft.


Set screw
Upper flange
Spacer T4 (A) (silver)
Guide roller
(Face the side of the
bearing downward.)
Spacer T4 (B) (gold)
Lower flange
Compression coil spring
Guide shaft

Adjustment after Replacement

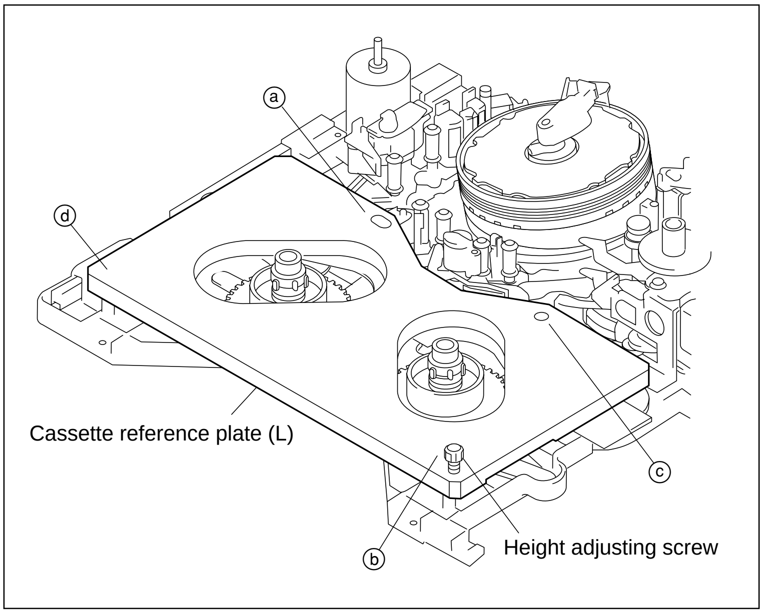
3. Tape guide height temporary adjustment (T4 guide)

Note

The height of the T4 guide has been adjusted by inserting a 0.1 mm thickness gauge under the S side gauge according to the unit. The unit can be adjusted as follows.

(1) Place the cassette reference plate (L) at the position of the L cassette.

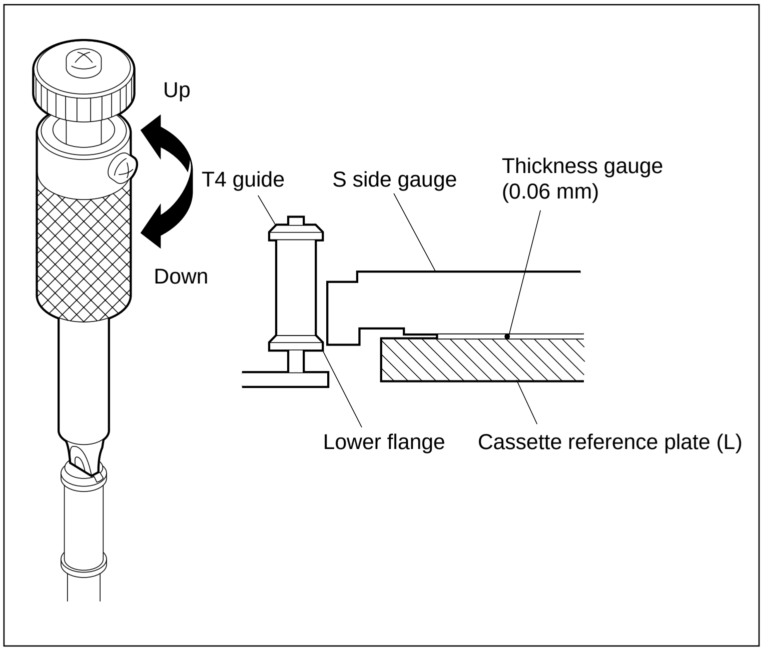
(2) Push points ⓐ, ⓑ, ⓒ and ⓓ with your finger to check the slant. If the point ⓐ or ⓑ rattles, turn the height adjusting screw clockwise. If the point ⓒ or ⓓ rattles, turn the height adjusting screw counterclockwise to make the plate flat.


ⓐ
ⓓ
Cassette reference plate (L)
ⓒ
ⓑ
Height adjusting screw

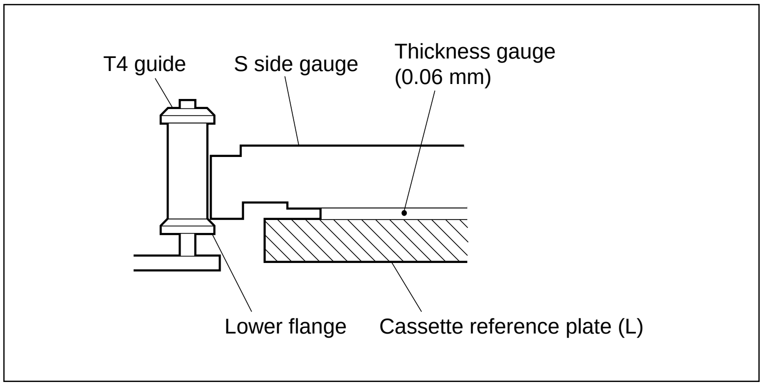
(3) Clean the top surface of the cassette reference plate (L), all surfaces of the S side gauge and 0.03 mm and 0.06 mm thickness gauges using a cleaning cloth moistened with cleaning fluid.

(4) Place the 0.06 mm thickness gauge on the cassette reference plate (L), and then place the S side gauge as shown in the figure.

(5) Turn the upper flange of the S4 guide counterclockwise until the lower flange touches the bottom surface of the S side gauge.


Up
Down
T4 guide
S side gauge
Thickness gauge (0.06 mm)
Lower flange
Cassette reference plate (L)

(6) While touching the S side gauge against the T4 guide, slowly turn the screwdriver knob of the tape guide adjusting screwdriver that is attached to the upper flange to lower the T4 guide until the S side guide does not touch the lower flange.

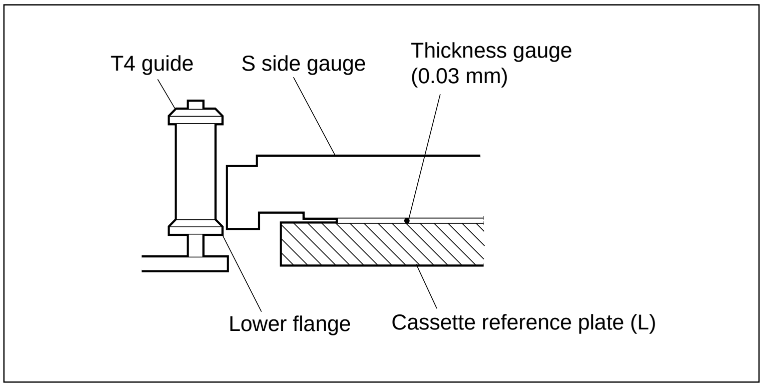

T4 guide
S side gauge
Thickness gauge
(0.06 mm)
Lower flange
Cassette reference plate (L)

(7) Change the thickness of the thickness gauge from 0.06 mm to 0.03 mm, and then place it on the cassette reference plate (L). Also, place the S side gauge as shown in the figure.

(8) Move the S side gauge to the side of the T4 guide, and then ensure that the bottom surface of the S side gauge touches the lower flange of the T4 guide.

Note

Do not push the S side gauge to the T4 guide. If the lower side of the S side gauge touches the roller of the T4 guide, perform the procedure from step (4) again.


T4 guide
S side gauge
Thickness gauge
(0.03 mm)
Lower flange
Cassette reference plate (L)

(9) Tighten the setscrew to the specified torque.
Tightening torque :
9×10^{-2} N•m (0.9 kgf•cm)

4. Alignment tape tracking check

(Refer to Section 3-2-10.)

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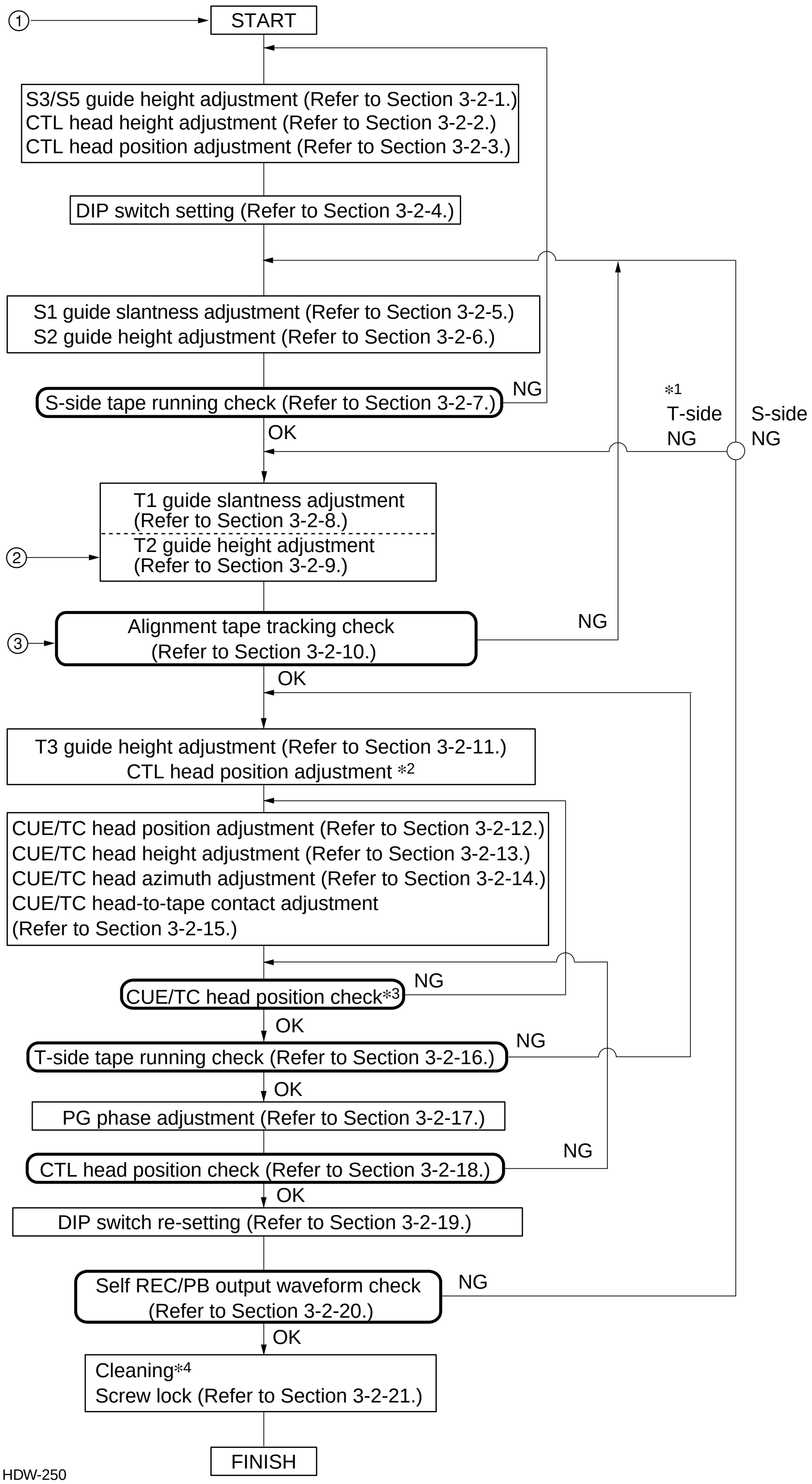
Section 3
Tape Path Alignment

3-1. General Information for Tape Path Adjustment

3-1-1. Tape Path Adjustment Flow

Perform the tape path adjustment of HDW-250 as following flow chart.


①
START
S3/S5 guide height adjustment (Refer to Section 3-2-1.)
CTL head height adjustment (Refer to Section 3-2-2.)
CTL head position adjustment (Refer to Section 3-2-3.)
DIP switch setting (Refer to Section 3-2-4.)
S1 guide slantness adjustment (Refer to Section 3-2-5.)
S2 guide height adjustment (Refer to Section 3-2-6.)
S-side tape running check (Refer to Section 3-2-7.)
NG
OK
*1
T-side
NG
S-side
NG
T1 guide slantness adjustment
(Refer to Section 3-2-8.)
②
T2 guide height adjustment
(Refer to Section 3-2-9.)
③
Alignment tape tracking check
(Refer to Section 3-2-10.)
NG
OK
T3 guide height adjustment (Refer to Section 3-2-11.)
CTL head position adjustment *2
CUE/TC head position adjustment (Refer to Section 3-2-12.)
CUE/TC head height adjustment (Refer to Section 3-2-13.)
CUE/TC head azimuth adjustment (Refer to Section 3-2-14.)
CUE/TC head-to-tape contact adjustment
(Refer to Section 3-2-15.)
CUE/TC head position check*3
NG
OK
T-side tape running check (Refer to Section 3-2-16.)
NG
OK
PG phase adjustment (Refer to Section 3-2-17.)
CTL head position check (Refer to Section 3-2-18.)
NG
OK
DIP switch re-setting (Refer to Section 3-2-19.)
Self REC/PB output waveform check
(Refer to Section 3-2-20.)
NG
OK
Cleaning*4
Screw lock (Refer to Section 3-2-21.)
FINISH

Reference :

①
- Upper Drum Replacement
- Drum Replacement
- Tension Regulator Roller Replacement
- CTL Head Replacement
- FE Head Replacement
- S Arm Assembly Replacement
- S2/S3 Guides Replacement

*1

S-side NG :	The rising edge of the waveform is not within specifications.
T-side NG :	The falling edge of the waveform is not within specifications.

*2
For the CTL head position check, refer to Section 3-2-3.

②
- T2 Guide Replacement

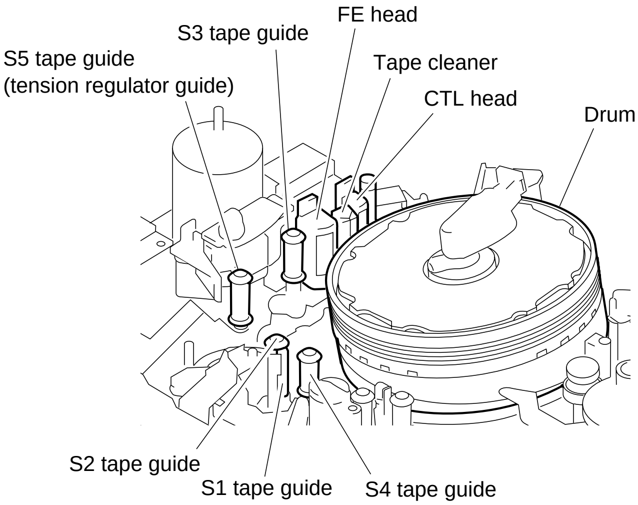
③
- CUE/TC Head Replacement
- T Link and T Arm Assembly Replacement
- T4 Guide Replacement

*3
Perform the adjustment described in Section 3-2-12.

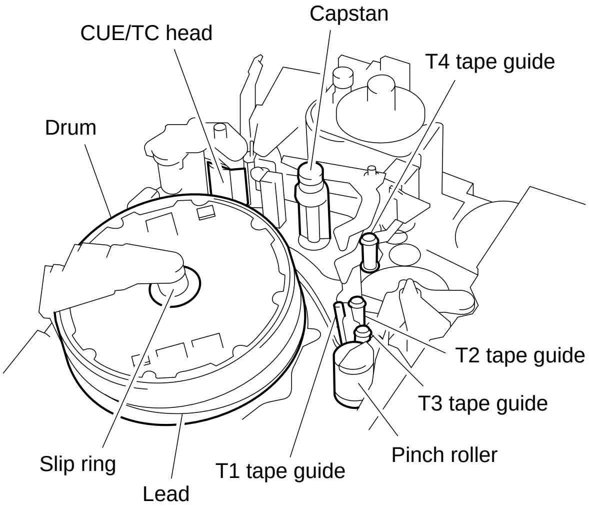
*4
Refer to the Maintenance Manual Part 1, Section "5-2. Cleaning".

3-1-2. Locations of Tape Running System

Drum entrance side (Unthreading end mode)


FE head
S3 tape guide
S5 tape guide
(tension regulator guide)
Tape cleaner
CTL head
Drum
S2 tape guide
S1 tape guide
S4 tape guide

Drum exit side (Unthreading end mode)

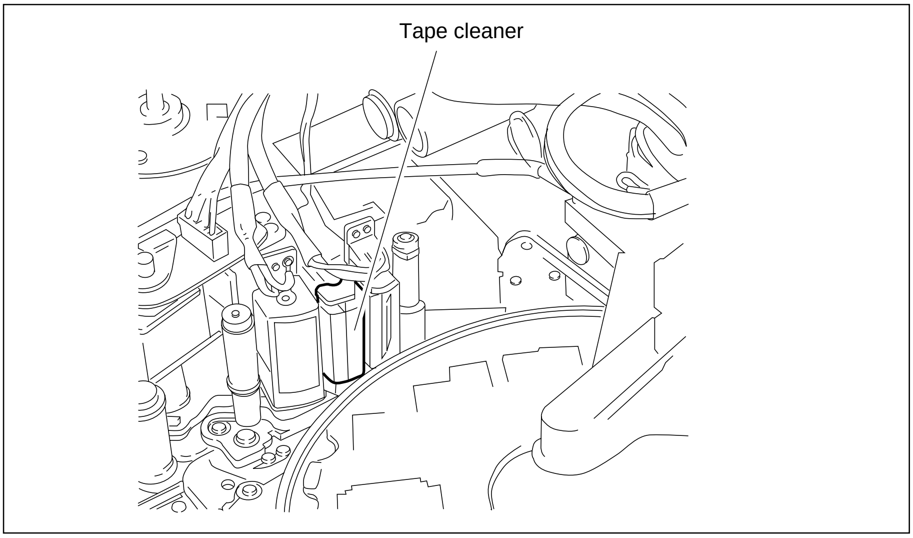

Capstan
CUE/TC head
T4 tape guide
Drum
T2 tape guide
T3 tape guide
Pinch roller
Slip ring
T1 tape guide
Lead

3-1-3. Notes

- About tape cleaner

Note

Never touch the tape cleaner installed at the entrance head assembly with bare hands.
A sharped edge on the tape cleaner may injure your finger. When cleaning the tape cleaner, take care it.



- About tape running adjustment

Carrying out the tape running adjustment after replacing the part of the tape path system.
First carry out the checks and adjustments of the tape running using a cassette tape BCT-124HDL of standard product or etc. Next carry out the checks and fine adjustments of the tape running using an alignment tape HR2-1A.

- About screws at the top of the tape guides.

Tighten the screws at the top of the tape guides to the following tightening torque.
9×10^{-2} N•m (0.9 kgf•cm)

3-1-4. Preparations

Before adjustments in this section, perform as follows.

(1) Turn off the power.
(2) Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
(3) Clean the following places using a cleaning piece moistened with cleaning fluid.
(Refer to the Maintenance Manual Part 1, Section 5-2.)
  - Video head
  - Tape running surface of upper drum
  - Tape running surface and lead of the lower drum
  - Stationary heads
  - Tape cleaner
  - All tape guides
  - Capstan shaft
  - Pinch roller

3-1-5. Tools

Use the following tools for the tape path adjustment.

• Tape guide adjustment screwdriver (45)	J-6322-420-A
• Inspection mirror (Small oval type)	J-6080-840-A
• Cleaning cloth	3-184-527-01
• Cleaning fluid	9-919-573-01
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Torque screwdriver bit (for M2)	J-6325-380-A
• Torque screwdriver hex. bit (across 1.27 mm)	J-7031-460-A
• Nutdriver (for M2)	
• Regulated DC power supply (AC-550 or equivalent)	
• Oscilloscope	
• Cassette tape BCT-124HDL/BCT-40HD	
• Alignment tape HR2-1A	8-960-076-11

Contents

Time min.:sec.	CTL TRACK	CUE TRACK	VIDEO/AUDIO TRACK	USE
00 : 00 ↑ (CTL Pulse) ↓	CTL	1 kHz, 0 VU	5.875 MHz (A ch only)	• Video tracking adjustment • CTL head position adjustment • CUE head height adjustment • CUE/TC head position adjustment
15 : 00		12 kHz, 0 VU	A, C ch-5.875 MHz	• CUE/TC head azimuth adjustment • CUE/TC head-to-tape contact adjustment
20 : 00			A, C ch First half : 5.875 MHz Latter half : 23.5 MHz B, D ch First half : 23.5 MHz Latter half : 5.875 MHz	
25 : 00			23.5 MHz (All ch)	
30 : 00				

∗ The CTL head height adjustment can use at any position of the alignment tape.

3-2. Tape Path Adjustment

3-2-1. S3/S5 Tape Guide Height Adjustment

Tools

• Tape guide adjustment screwdriver (45)	J-6322-420-A
• Inspection mirror (Small oval type)	J-6080-840-A
• Alignment tape HR2-1A	8-960-076-11
• Cassette tape BCT-124HDL	Standard product

Adjustment Procedure

1. S3/S5 tape guide height adjustment

Note

Because the S4 guide is the reference of the tape running, never make any attempt to adjust the height of the S4 guide except when the guide roller is replaced.

(1) Play back a BCT-124HDL (from 5:00 to 10:00).

(2) Loosen the setscrew at the top of the S3 guide using the tape guide adjustment screwdriver. Turn the upper flange of the guide, and adjust the height of the guide so that it meets the specification 1.
(Spec.1: Refer to Section “3-2-7. S-side Tape Running Check”, specification 1.)

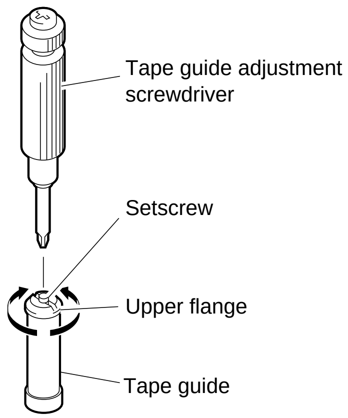
(3) Tighten the setscrew at the top of the S3 guide.

(4) Stop the BCT-124HDL (from 5:00 to 10:00).

(5) Loosen the setscrew at the top of the S5 guide using the tape guide adjustment screwdriver. Turn the upper frange and adjust the height of the guide so that it satisfies the specification 1.

(6) Tighten the setscrew at the top of the S5 guide.

(7) Put the unit into the unthreading end state, and then return to the threading end state.
After that, re-check that the S3, S4 and S5 guides height meets the specification 1.
(Refer to Section 3-2-7.)



2. Drum enterance tape running re-check

Carry out the S side tape running check.
(Refer to Section 3-2-7.)
If the specifications are not satisfied, perform the S3/S5 tape guide height adjustment of the step 1.

After the specifications are satisfied, carry out the step 1 (S3/S5 tape guide height adjustment) and step 2 (Drum entrance tape running re-check) again using an alignment tape HR2-1A.

3-2-2. CTL Head Height Adjustment

Tools

- Alignment tape HR2-1A 8-960-076-11
- Nutdriver (for M2)
- Oscilloscope
- Regulated DC power supply
  (AC-550 or equivalent)

Setting

1. Turn off the power.
2. Remove the top panel.
   (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP1/MB-825 (CTL)
   TRIG : TP4/MB-825 (CF)
4. Connect a regulated DC power supply to the DC IN connector on the connector panel.
5. Turn on the power.
6. Insert an alignment tape HR2-1A.

Checking Procedure

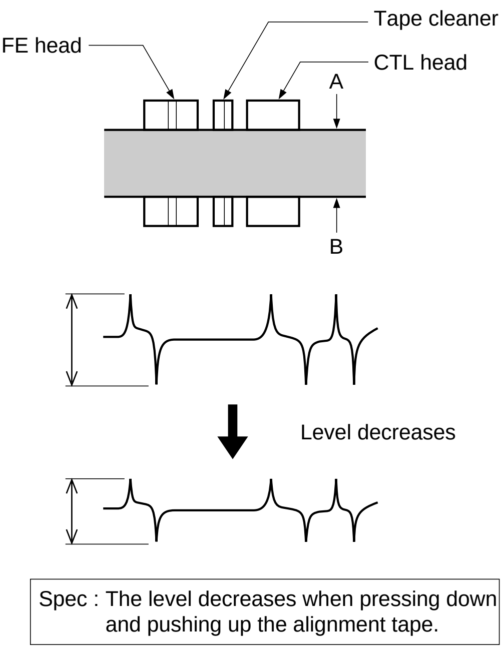
1. Playback the alignment tape

Play back the alignment tape HR2-1A in any portion.

2. CTL head height check

(1) Press down the portion A of the tape shown in the figure and check that the level decreases.
If the level increases, perform the step 3.

(2) Push up the portion B and check that the level decreases.
If the level increases, perform the step 4.



Spec : The level decreases when pressing down and pushing up the alignment tape.

Adjustment Procedure

3. If the level increases when pressing down the tape

(1) Turn the height adjusting nut counterclockwise until the output waveform is beyond the maximum.

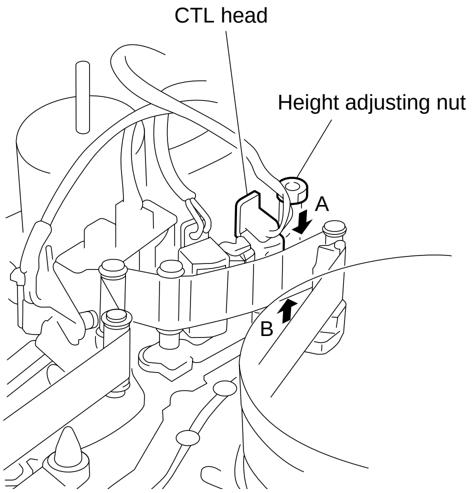
(2) Turn the height adjusting nut clockwise the output waveform.

4. If the level increases when pushing up the tape

Turn the height adjusting nut clockwise so that the output waveform is the maximum.

5. Check

Eject the alignment tape HR2-1A. Insert it again and perform the steps 1 and 2 to check that the specifications are satisfied.



3-2-3. CTL Head Position Adjustment

Note

The CTL head position adjustment is closely related to the CUE/TC head position adjustment.
After performing the CTL head position adjustment, be sure to perform the CUE/TC head position check.

Tools

• Alignment tape HR2-1A	8-960-076-11
• Torque screwdriver bit (for M2)	J-6325-380-A
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

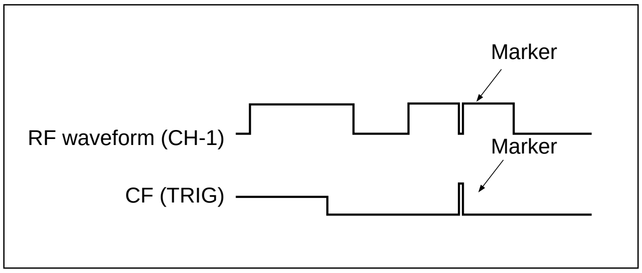
1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Open the L SUB cover on the left side panel. (Refer to the Maintenance Manual Part 1, Section “1-12. Tracking Adjustment and Audio Meter Brightness Adjustment”.)
4. Set all four bits of DIP switches S1 and S2 on the UDR-20 board which attaches to the upper drum to ON.
5. Set the switch S601-1 on the EQ-76 board to ON.
6. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP5/MB-825 (REC A)
   CH-2 : TP1/MB-825 (CTL)
   TRIG : TP4/MB-825 (CF)

7. Connect a regulated DC power supply to the DC IN connector on the connector panel.
8. Turn on the power.
9. On the setup menu, set AUTO TRACKING to OFF.
10. Insert an alignment tape HR2-1A.

Checking Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (from 00:00 to 15:00).



2. CTL head position check

(1) Menu setting

① To display the DIAG menu, press the DIAG button using a tip of a straightened-out paper clip or similar object.

② Move the cursor (✻) to the menu as follows and press the SET button each time.
"TEST" → "TTP" → SET → "PATH" → SET → "CTL PHS" → SET → "REC" (Change the "PB" to "REC" using the UP/DOWN button.) → SET

(2) Turn the tracking control volume using a screwdriver so that the output level at the center of the RF waveform is the maximum.
Check that the marker on the RF waveform is at the position shown in the figure.

(3) Turn the tracking control volume to center click position. Check that the output level of the RF waveform with the marker does not change and as same as the level of the step (2).
If not, perform the step 3 and later.

Adjustment Procedure

3. CTL head position adjustment

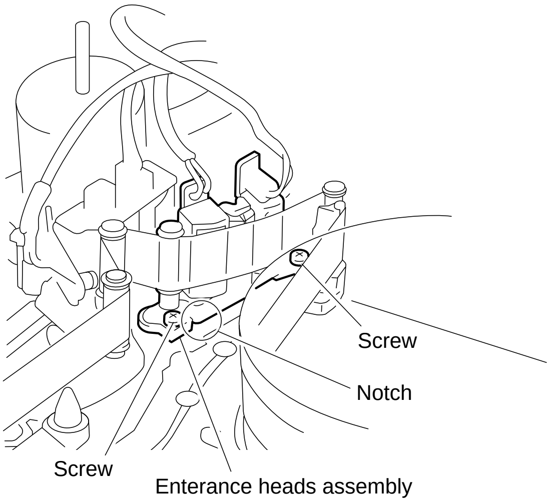
(1) Turn the tracking control volume to center click position.

(2) Turn the two screws which secure the entrance head assembly 1/4 to 1/2 turn.

(3) Insert a slotted head screwdriver (3 mm) into the notch of the entrance head assembly.

(4) Turn the screwdriver and adjust the CTL head position so that the marker on the RF waveform is output during the low level at the CTL PULSE, and the output level at the center of the RF waveform is the maximum.

(5) While holding the screwdriver in the step (4), tighten the two screws.

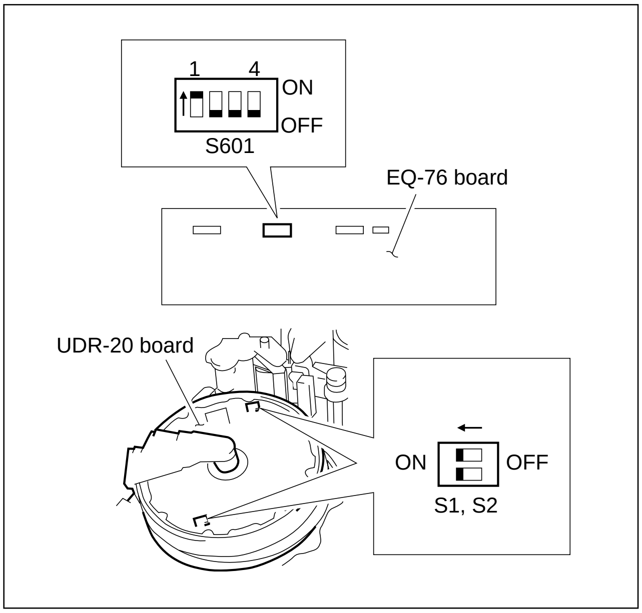


4. CTL head position re-check

Perform the steps 1 and 2 to re-check the CTL head position.

3-2-4. DIP Switch Setting

1. Turn off the power of the HDW-250.
2. Set all four bits of DIP switches S1 and S2 on the UDR-20 board to ON.
3. Set switch S601-1 on the EQ-76 board to ON.
4. Turn on the power of the HDW-250.


1
4
ON
OFF
S601
EQ-76 board
UDR-20 board
ON
OFF
S1, S2

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3-2-5. S1 Guide Slantness Adjustment

Tools

• Alignment tape HR2-1A	8-960-076-11
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Torque screwdriver hex. bit (across 1.27 mm)	J-7031-460-A
• Tape guide adjustment screwdriver (45)	J-6322-420-A
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Open the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section “1-12. Tracking Adjustment and Audio Meter Brightness Adjustment”.)
4. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP5/MB-825 (REC A)
   TRIG : TP4/MB-825 (CF)

5. Connect a regulated DC power supply to the DC IN connector on the connector panel.
6. Set the DIP switches. (Refer to Section 3-2-4.)
7. Turn on the power.
8. On the setup menu, set AUTO TRACKING to OFF.
9. Insert an alignment tape HR2-1A.

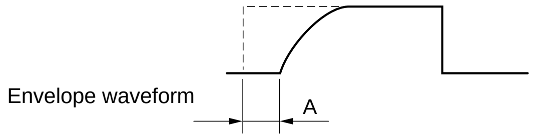
Adjustment Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (from 00:00 to 15:00).

2. S1 guide slantness adjustment

(1) Turn the tracking control volume using a screwdriver so that the output level at the center of the envelope waveform is the maximum.
(2) Turn the upper flange of the S2 guide counterclockwise, and adjust the height so that the tape runs without contacting the upper and lower flanges of the S2 guide.
(3) Adjust the slantness of the S1 guide so that the envelope waveform meets the specification.



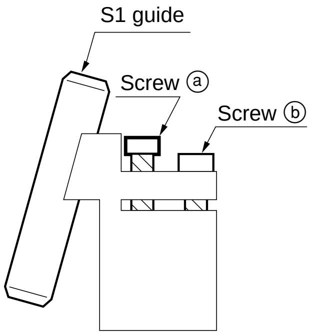
Spec : A = 3 ±1 ms

Adjust the slantness of the S1 guide as follows :

(4) Eject the alignment tape and insert it and play back again.
(5) Check that the envelope waveform **A** meets the specification.
If not, perform the step (3) and later.
(6) Tighten the set screws ⓐ and ⓑ.
Tightening torque:
0.06 ±0.01 N•m (0.60 ±0.15 kgf•cm)

Note

A slantness change of the S1 guide will get the tape to make contact with the flange of the S2 guide by tape height change. In this case, perform the step (2) and later again.



- To lengthen the A
  (1) At first, loosen the screw ⓑ.
  (2) And then, tighten the screw ⓐ.

- To shorten the A
  (1) At first, loosen the screw ⓐ.
  (2) And then, tighten the screw ⓑ.
  (3) And then, tighten the screw ⓐ.

3. S1 guide slantness check

Repeat the mode change from EJECT mode to PLAY mode 3 times. Check that the envelope waveform **A** meets the specification.
If not, perform the step 1 and later again.

3-2-6. S2 Guide Height Adjustment

Tools

• Alignment tape HR2-1A	8-960-076-11
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	
• Tape guide adjustment screwdriver (45)	J-6322-420-A

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Open the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section “1-12. Tracking Adjustment and Audio Meter Brightness Adjustment”.)
4. Connect an oscilloscope to the following connectors on the MB-825 board.
   CH-1 : TP5/MB-825 (REC A)
   TRIG : TP4/MB-825 (CF)

5. Connect a regulated DC power supply to the DC IN connector on the connector panel.
6. Set the DIP switches. (Refer to Section 3-2-4.)
7. Turn on the power.
8. On the setup menu, set AUTO TRACKING to OFF.
9. Insert an alignment tape HR2-1A.

Adjustment Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (from 00:00 to 15:00).

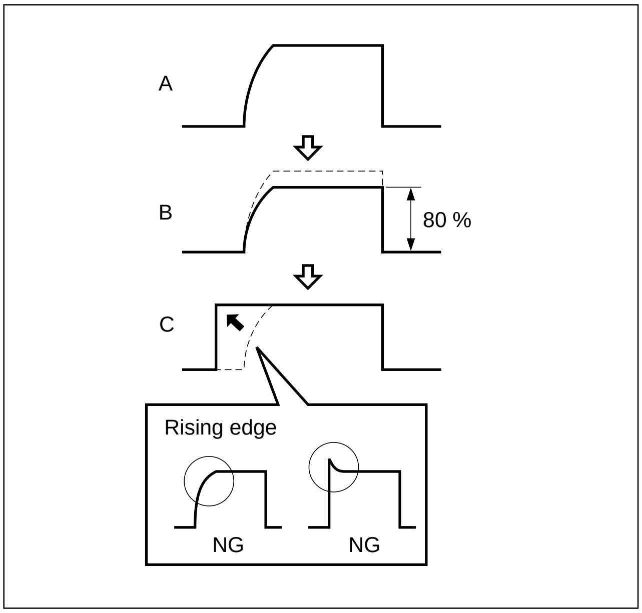
2. S2 guide height adjustment

(1) Turn the tracking control volume using a screwdriver so that the output level at the center of the envelope waveform is 80 % of the maximum output (waveform **B** shown in the figure).

(2) Turn the upper flange of the S2 guide using a tape guide adjustment screwdriver so that the rising edge of the envelope waveform makes flat as shown in figure **C**.

(3) Check that tape runs in contact with the upper flange of the S2 guide.

(4) Tighten the set screw on the upper flange to the following tightening torque.
Tightening torque : 9×10^{-2} N•m (0.9 kgf•cm)



3. S2 guide height check

Repeat the mode change from EJECT mode to PLAY mode 3 times. Check that the rising edge of the envelope waveform in the PLAY mode is the same as the pre-PLAY mode.

3-2-7. S-side Tape Running Check

Tools

• Inspection mirror (Small oval type)	J-6080-840-A
• Alignment tape HR2-1A	8-960-076-11
• Cassette tape BCT-124HDL	Standard product

Checking Procedure

If the specifications are not satisfied after the checks of the following 1 to 4, perform the S3/S5 tape guide height adjustment (Section 3-2-1) and S2 guide height adjustment (Section 3-2-6).

1. Play mode (Middle portion except beginning and last 5 minutes)

Put into the PLAY mode at the beginning portion of the BCT-124HDL.
Check that the tape running condition meets the specification 1 on the next page.

2. REV SEARCH mode (Middle portion except beginning and last 5 minutes)

Put into the REV SEARCH mode at the beginning portion of the BCT-124HDL.
Check that the tape running condition satisfies the specification 1.

Note

How to put into the REV SEARCH mode ;
While pushing the FUNC button, press the REW button.
Every time the REW button is pressed, the REV SEARCH speed changes 2 times (×2) the original speed, 5 times (×5), and 8 times (×8). The speed can be checked on the INFORMATION display.
For more details, refer to Operation Manual.

3. F FWD mode (Middle portion except beginning and last 5 minutes)

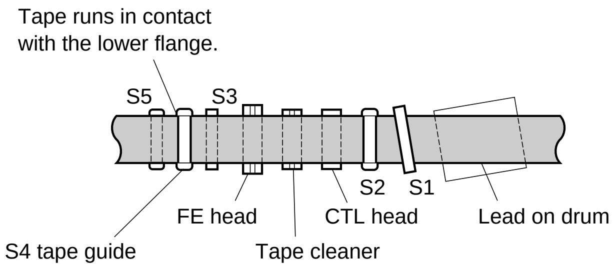
Put into the F FWD mode at the beginning portion of the BCT-124HDL.

4. REW mode (Middle portion except beginning and last 5 minutes)

Put into the REW mode at the beginning portion of the BCT-124HDL.
Check that the tape running condition satisfies the specification 1.

Specification 1

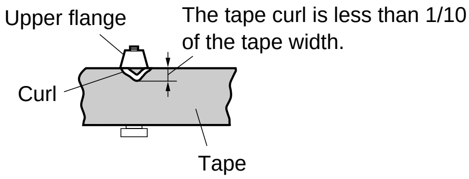
		Guide				Lead on drum
		S5	S4	S3	S2	
Play mode	Acceptable range of tape curl	Less than 1/10 of tape width	Less than 1/10 of tape width *1	Not acceptable (No curl)	Less than 1/10 of tape width *1	Not acceptable (No curl)
	Tape contacting flange	Upper (or Lower)	Lower	Upper	Upper	–


Tape runs in contact with the lower flange.
S5
S3
S2
S1
FE head
CTL head
Lead on drum
S4 tape guide
Tape cleaner

Acceptable range of tape curl

	Guide				Lead on drum
	S5	S4	S3	S2	
Rev ×2 mode F FWD mode REW mode	Less than 1/10 of tape width	Less than 1/10 of tape width	Not acceptable (No curl)	Less than 1/10 of tape width *1	Less than 1/10 of tape width *2 *3

*1 : Tape curl at the center of tape wrap is not acceptable.
*2 : Tape curl should disappear within 1 second when the mode change is performed from each mode to PLAY.
*3 : Tape curl is not acceptable during Rev ×2 mode.


Upper flange
The tape curl is less than 1/10 of the tape width.
Curl
Tape

3-2-8. T1 Guide Slantness Adjustment

Tools

• Alignment tape HR2-1A	8-960-076-11
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Torque screwdriver hex. bit (across 1.27 mm)	J-7031-460-A
• Tape guide adjustment screwdriver (45)	J-6322-420-A
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)
3. Open the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section "1-12. Tracking Adjustment and Audio Meter Brightness Adjustment".)
4. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP5/MB-825 (REC A)
   TRIG : TP4/MB-825 (CF)

5. Connect a regulated DC power supply to the DC IN connector on the connector panel.
6. Set the DIP switches. (Refer to Section 3-2-4.)
7. Turn on the power.
8. On the setup menu, set AUTO TRACKING to OFF.
9. Insert an alignment tape HR2-1A.

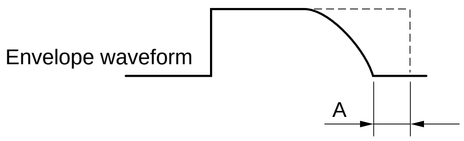
Adjustment Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (from 00:00 to 15:00). Check whether tape curl is acceptable. If a tape curl is acceptable, adjust the height of the T3 guide until the tape curl is removed.

2. T1 guide slantness adjustment

(1) Turn the tracking control volume using a screwdriver so that the output level at the center of the envelope waveform is the maximum.
(2) Turn the upper flange of the T2 guide counterclockwise, and adjust the height so that the tape runs without contacting the upper and lower flanges of the T2 guide.
(3) Adjust the slantness of the T1 guide so that the envelope waveform meets the specification.



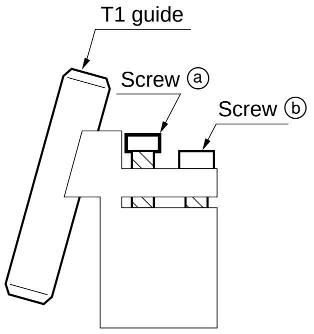
Spec : A = 2.5 ±1.5 ms

Adjust the slantness of the T1 guide as follows :

(4) Eject the alignment tape and insert it and play back again.
(5) Check that the envelope waveform **A** meets the specification.
If not, perform the step (3) and later.
(6) Tighten the set screws ⓐ and ⓑ to the following tightening torque.
Tightening torque :
0.06 ±0.01 N•m (0.6 ±0.15 kgf•cm)

Note

A slantness change of the T1 guide will get the tape to make contact with the flange of the T2 guide by tape height change. In this case, perform the step (2) and later again.



- To lengthen the A
  (1) At first, loosen the screw ⓐ.
  (2) And then, tighten the screw ⓑ.
  (3) And then, tighten the screw ⓐ.

- To shorten the A
  (1) At first, loosen the screw ⓑ.
  (2) And then, tighten the screw ⓐ.

3. T1 guide slantness check

Repeat the mode change from EJECT mode to PLAY mode 3 times. Check that the envelope waveform **A** meets the specification.
If not, perform the step 1 and later again.

3-2-9. T2 Guide Height Adjustment

Tools

• Alignment tape HR2-1A	8-960-076-11
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	
• Tape guide adjustment screwdriver (45)	J-6322-420-A

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP5/MB-825 (REC A)
   TRIG : TP4/MB-825 (CF)

4. Connect a regulated DC power supply to the DC IN connector on the connector panel.
5. Set the DIP switches. (Refer to Section 3-2-4.)
6. Turn on the power.
7. Insert an alignment tape HR2-1A.
8. On the setup menu, set AUTO TRACKING to OFF.

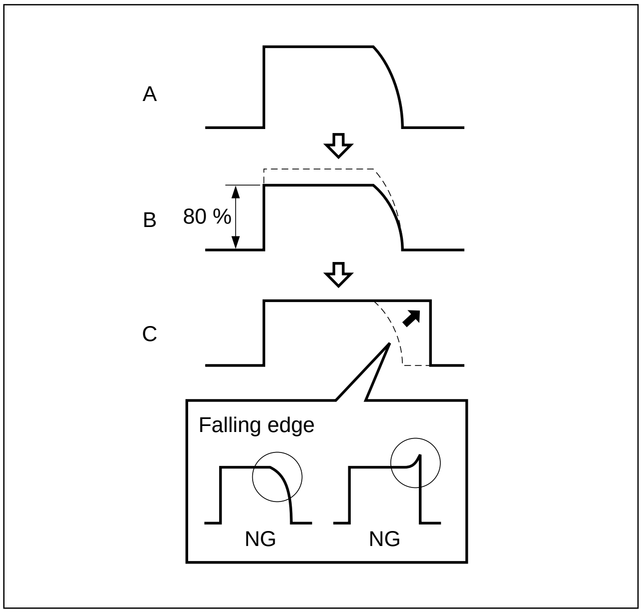
Adjustment Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (from 00:00 to 15:00).

2. T2 guide height adjustment

(1) Turn the tracking control volume using a screwdriver so that the output level at the center of the envelope waveform is 80 % of the maximum output (waveform **B** shown in the figure).
(2) Turn the upper flange of the T2 guide using a tape guide adjustment screwdriver so that the falling edge of the envelope waveform makes flat as shown in figure **C**.
(3) Check that tape runs in contact with the upper flange of the T2 guide.
(4) Tighten the set screws on the upper flange to the following tightening torque.
Tightening torque: 9×10^{-2} N•m (0.9 kgf•cm)



3. T2 guide height check

Repeat the mode change from EJECT mode to PLAY mode 3 times. Check that the falling edge of the envelope waveform in the PLAY mode is the same as the pre-PLAY mode.

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3-2-10. Alignment Tape Tracking Check

Tools

• Alignment tape HR2-1A	8-960-076-11
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Open the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section “1-12. Tracking Adjustment and Audio Meter Brightness Adjustment”.)
4. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP5/MB-825 (REC A)
   TRIG : TP4/MB-825 (CF)

5. Connect a regulated DC power supply to the DC IN connector on the connector panel.
6. Turn on the power.
7. On the setup menu, set AUTO TRACKING to OFF.
8. Insert an alignment tape HR2-1A.

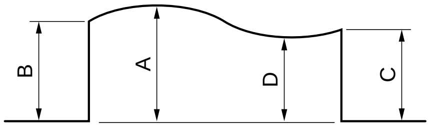
Checking Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (from 00:00 to 15:00).

2. Tracking check

(1) Turn the tracking control volume using a screwdriver so that the output level at the center of the envelope waveform is the maximum.
(2) Turn the tracking control volume clockwise so that the output level at the center of the envelope waveform is 80 % of the maximum amplitude.
(3) Check that the envelope waveform meets the specification 1.

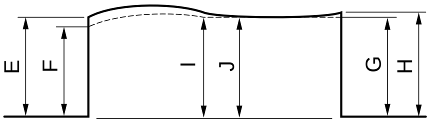


Spec.1 : $\frac{B}{A} \geqq 0.8$, $\frac{C}{A} \geqq 0.8$, $\frac{D}{A} \geqq 0.8$

A : Maximum amplitude

Portion B is the rising width, C is the falling width, and D is the minimum width respectively of the output waveform.

(4) Check that the envelope waveform meets the specification 2.



Spec.2 : The maximum fluctuation at each portion of the waveform must be 10 % or less.

$\frac{F}{E} \geqq 0.9$, $\frac{G}{H} \geqq 0.9$, $\frac{I}{J} \geqq 0.9$

Portions F and S are the rising width, G and H are the falling width, and I and J are the center width of the waveform respectively. They indicate the maximum and the minimum amplitudes of the waveform deviation.

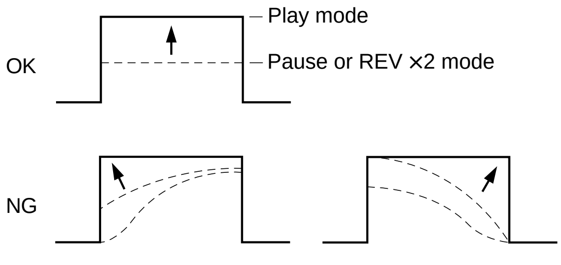
3. Tracking check in the upright position

(1) Put the unit in the upright position.
(2) Check that the envelope waveform meets the specifications 1 and 2.

If the envelope waveform does not meet the specification 1 and/or 2 in the steps 2 and 3, perform the adjustments from Section “3-2-5. S1 Guide Slantness Adjustment” and later again.

4. Rising time check

(1) Play back the alignment tape HR2-1A (from 00:00 to 15:00).
(2) Turn the tracking control volume using a screwdriver so that the output level at the center of the envelope waveform is the maximum.
(3) Put into EJECT mode once.
(4) Put into threading mode, and press the PLAY button.
(5) Press the STOP button to put into STDBY ON mode and press the PLAY button again.
(6) Check that the tape curl at the lead portion disappears within 0.5 second and the envelope waveform rises within 1 second as shown in the figure.
(7) Put into REV ×2 mode. After several seconds, put into PLAY mode.
Check that the waveform rises within 1 second as shown in the figure.
(8) Repeat 3 times from the steps (4) to (7).



3-2-11. T3 Guide Height Adjustment

Tools

• Alignment tape HR2-1A	8-960-076-11
• Cassette tape BCT-124HDL	Standard product

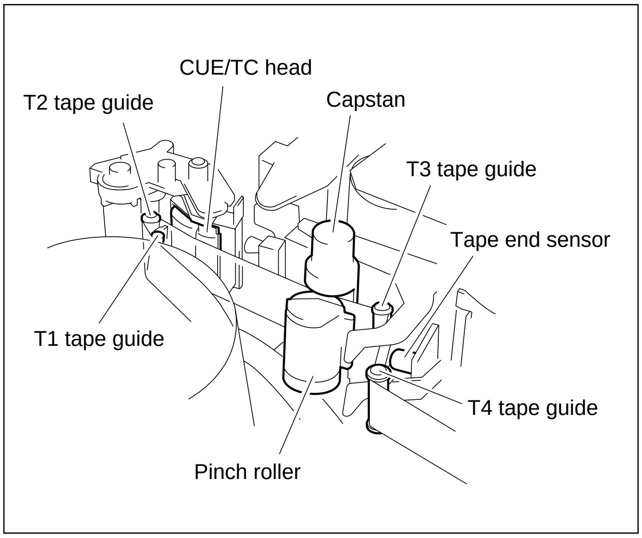
Adjustment Procedure

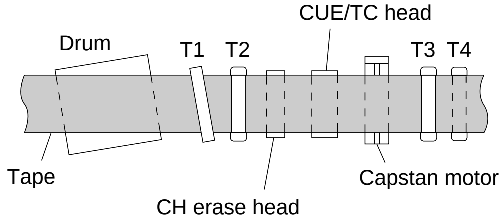
1. T3 tape guide height adjustment

Note

Because the S4 (S drawer) guide is the reference of the tape running, never make any attempt to change the height of the guide. When the S4 (S drawer) guide needs its replacement, replace the S arm assembly, including the S4 guide. (Refer to Section "2-23. S Arm Assembly Replacement".)

(1) Play back the end portion of a BCT-124HDL tape.
(2) Loosen the setscrew at the top of the T3 guide using the tape guide adjustment screwdriver. Turn the upper flange of the guide so that the specification 1 is satisfied.
(3) Tighten the screw at the top of the T3 guide.


CUE/TC head
T2 tape guide
Capstan
T3 tape guide
Tape end sensor
T1 tape guide
T4 tape guide
Pinch roller


CUE/TC head
Drum
T1
T2
T3
T4
Tape
Capstan motor
CH erase head

Specification 1

		Guide	
		T3	T4
PLAY mode	Acceptable range of tape curl	Less than 1/10 of tape width	Less than 1/10 of tape width
	Tape contacting flange	Lower	Lower

Acceptable range of tape curl

		Guide	
		T3	T4
	Rev ×2 mode F FWD mode REW mode	Less than 1/10 of tape width	Less than 1/10 of tape width

2. T side tape running check

Refer to Section 3-2-16.

3. Restoration check

(1) Play back the BCT-124HDL tape.

(2) Push the portions ① and ② of the tape between the CUE/TC head and the pinch roller to the directions of A and B as shown using a side of a wooden stick during tape running.

(3) Take the wooden stick off the tape and check that a crease on the tape is smoothed within 2 seconds.
If a crease remains, perform the following steps (a) to (d).

(a) Set the unit to the unthreading end status and return it to the threading end status.

(b) Rotate the T3 guide flange to adjust the height.

- When a crease remains after pushing the tape to the direction A:
  Rotate the T3 guide flange clockwise (↻) at 90° to lower the T3 guide. (maximum 2 rotations, 180°)
- When a crease remains after pushing the tape to the direction B:
  Rotate the T3 guide flange counterclockwise (↺) at 90° to raise the T3 guide. (maximum 2 rotations, 180°)

(c) Perform the steps (1) to (3) again and check the tape returning force.

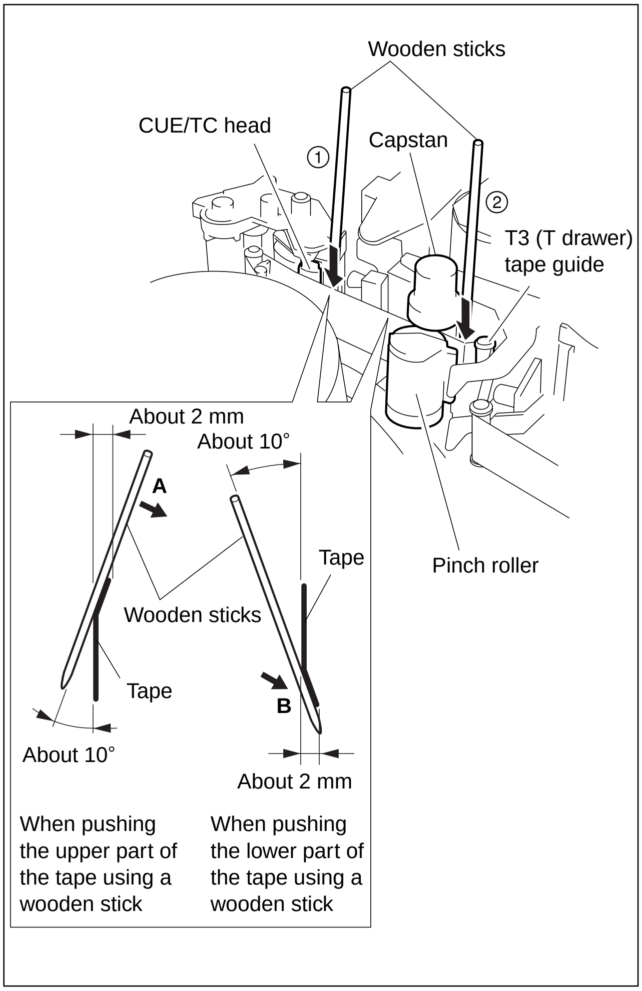
(d) When a crease is not smoothed within 2 seconds, perform the following items.

① CUE/TC head zenith adjustment (Section 3-3-2)
② T1 guide slantness adjustment (Section 3-2-8)
③ T2 guide height adjustment (Section 3-2-9)
④ Alignment tape tracking check (Section 3-2-10)
⑤ T3 guide height adjustment (this section)

(4) Put into REV (−2) mode and check that the tape does not drop from the drum lead.

(5) If the tape drops from the drum lead, perform the following and repeat from the step (1).

- CUE/TC head zenith adjustment (Refer to Section 3-3-2.)
- T2 tape guide slantness adjustment (Refer to Section 3-3-3.)


Wooden sticks
CUE/TC head
①
Capstan
②
T3 (T drawer) tape guide
Pinch roller
About 2 mm
About 10°
A
Tape
Wooden sticks
Tape
B
About 10°
About 2 mm
When pushing the upper part of the tape using a wooden stick
When pushing the lower part of the tape using a wooden stick

3-2-12. CUE/TC Head Position Adjustment

Notes

- Before performing this adjustment, be sure to finish the CTL head position adjustment.
  The CUE/TC head position depends on the CTL head position.
- The CUE/TC head position adjustment closely relates to the height adjustment, azimuth adjustment, and position adjustment.
  Perform these adjustments (or checks) after the CUE/TC head position adjustment.
  If any TC waveform cannot be obtained at the step 4 in setting, tentatively implement the CUE/TC head height adjustment (Section 3-2-13) before the position adjustment.

Tools

• Alignment tape HR2-1A	8-960-076-11
• Torque screwdriver bit (for M2)	J-6325-380-A
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Open the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section “1-12. Tracking Adjustment and Audio Meter Brightness Adjustment”.)
4. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP1/MB-825 (CTL)
   CH-2 : TP2/MB-825 (TC)
   TRIG : TP4/MB-825 (CF)

5. Set the DIP switches on the UDR-20 board and the EQ-76 board. (Refer to Ssection 3-2-4.)
6. Connect a regulated DC power supply to the DC IN connector on the connector panel.
7. Turn on the power.
8. On the setup menu, set AUTO TRACKING to OFF.
9. Insert an alignment tape HR2-1A.

Checking Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (00:00 to 15:00).

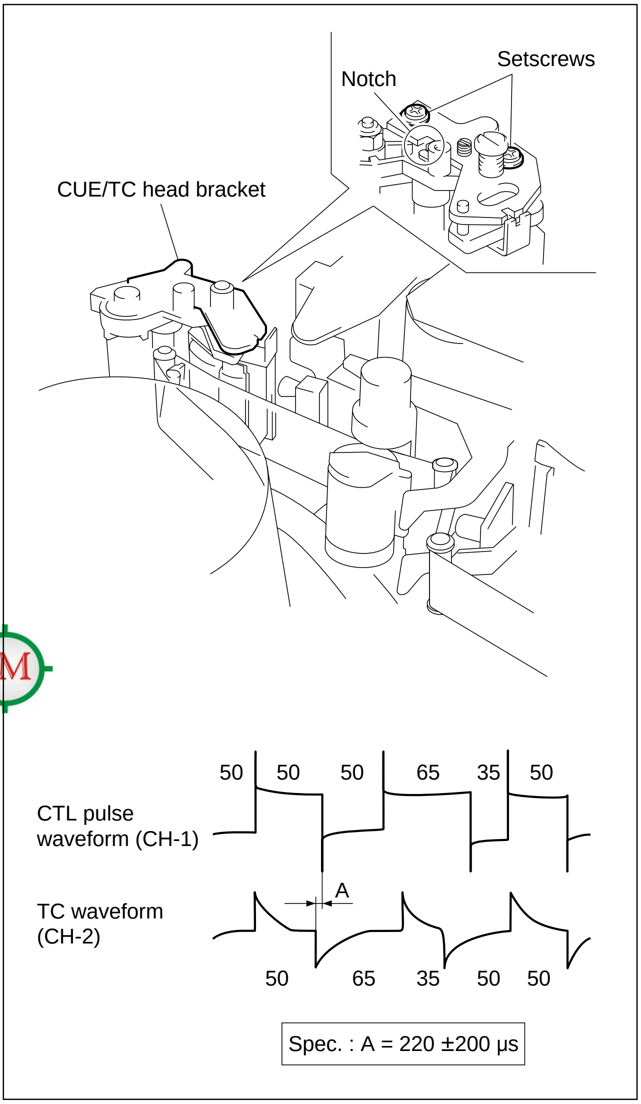
2. CUE/TC head position check

(1) Turn the tracking control volume to center click position.

(2) Check that the positional relation of the rising edge of the CTL pulse and the falling edge of the TC signal meets the specification.
If not, perform the step 3 and later.

(3) Repeat the mode change from EJECT mode to PLAY mode 2 or 3 times. Check that the waveform meets the specification.
If not, perform the step 3 and later.

(4) Repeat the mode change from REV SEARCH mode to PLAY mode 2 or 3 times. Check that the waveform meets the specification.
If not, perform the step 3 and later.



Spec. : A = 220 ±200 μs

Adjustment Procedure

3. CUE/TC head position adjustment

(1) Loosen two screws of the CUE/TC head bracket 1/4 to 1/2 turn.

(2) Insert a slotted head screwdriver (3 mm) into the notch of the CUE/TC head bracket.

(3) Adjust the CUE/TC head position using the screwdriver so that the specification is met.

(4) While holding the screwdriver in the step (3), tighten the two screws.

4. CUE/TC head height check

Refer to Section 3-2-13.

5. CUE/TC head azimuth check

Refer to Section 3-2-14.

6. CUE/TC head-to tape contact check

Refer to Section 3-2-15.

7. CUE/TC head position re-check

Re-check according to the checking procedure.

3-2-13. CUE/TC Head Height Adjustment

Note

The CUE/TC head height adjustment closely relates to the azimuth adjustment, head-to-tape contact adjustment, and position adjustment.
Perform these adjustments (or checks) after the CUE/TC head height adjustment.

Tools

• Alignment tape HR2-1A	8-960-076-11
• Nutdriver	
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinet”.)
3. Connect an oscilloscope to the AUDIO OUT terminal.
   (1) Set the CH-3/4 switch on the connector panel to “MON”.
   (2) Set the MONITOR SELECT switch on the control panel to “CUE”.
   (3) Connect an oscilloscope to 2-pin of the AUDIO OUT terminal 3 or 4.

Note

Instead of connecting an oscilloscope to the AUDIO OUT terminal, the same signal can be obtained by the following procedure.

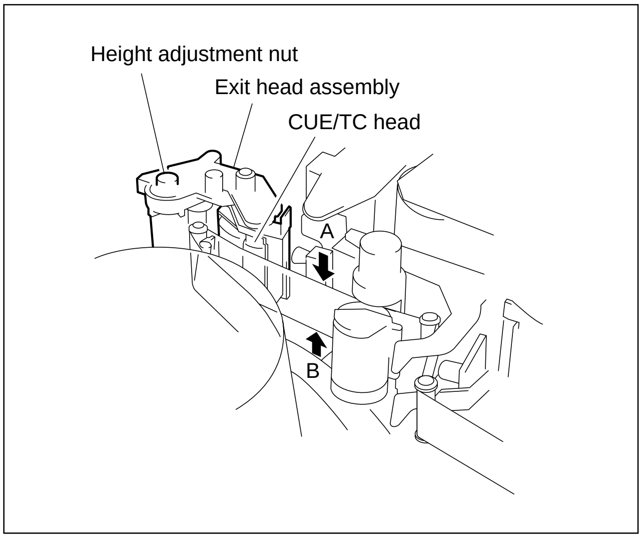
   (1) Remove the battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
   (2) Connect an oscilloscope to the following terminal on the EQ-76 board.
   CH-1 : TP-707/EQ-76 (CUE PB)

4. Connect a regulated DC power supply to the DC IN connector on the connector panel.
5. Turn on the power.
6. Insert an alignment tape HR2-1A.

Checking Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (00:00 to 15:00).



2. CUE/TC head height check

(1) Press down the position A of the tape shown in the figure and check that the level decreases.
If the level increases, perform the steps 3, and 5 and later.

(2) Push up the position B, check that the level decreases.
If the level increases, perform the step 4 and later.

(3) Repeat the mode change from EJECT mode to PLAY mode 2 or 3 times. Check that the output level is the same as the pre-PLAY level and does not change.
If the level changes, perform the step 3 and later.

(4) Repeat the mode change from REV SEARCH mode to PLAY mode 2 or 3 times. Check that the output level is the same as the pre-PLAY level and does not change.
If the level changes, perform the step 3 and later.

Note

How to put into the REV SEARCH mode ;
While pushing the FUNC button, press the REW button once. (The speed of the REW SEARCH mode becomes 2 times the original speed (×2).)

Adjustment Procedure

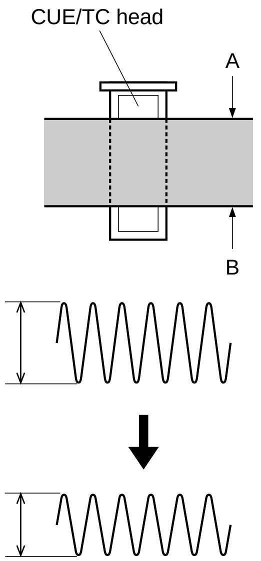
3. If the level increases when pressing down the tape

(1) Turn the height adjusting nut counterclockwise until the output waveform is beyond the maximum.

(2) Turn the height adjusting nut clockwise so that the output waveform is the maximum.

4. If the level increases when pushing up the tape

Turn the height adjusting nut clockwise so that the output waveform is the maximum.



Spec. : The level decreases when pressing down and pushing up the alignment tape.

5. CUE/TC head azimuth check

Refer to Section 3-2-14.

6. CUE/TC head-to-tape contact check

Refer to Section 3-2-15.

7. CUE/TC head position re-check

Refer to Section 3-2-12.

8. CUE/TC head height check

Re-check according to the checking procedure.

3-2-14. CUE/TC Head Azimuth Adjustment

Note

The CUE/TC head height adjustment closely relates to the azimuth adjustment, position adjustment, and height adjustment.
Perform these adjustments (or checks) after the CUE/TC head azimuth adjustment.

Tools

• Alignment tape HR2-1A	8-960-076-11
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Connect an oscilloscope to the AUDIO OUT terminal.
   (1) Set the CH-3/4 switch on the connector panel to “MON”.
   (2) Set the MONITOR SELECT switch on the connector panel to “CUE”.
   (3) Connect an oscilloscope to 2-pin of the AUDIO OUT terminal 3 or 4.

Note

Instead of connecting an oscilloscope to the AUDIO OUT terminal, the same signal can be obtained by the following procedure.
(1) Remove the battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
(2) Connect an oscilloscope to the following terminal on the EQ-76 board.
CH-1 : TP707/EQ-76 (CUE PB)

4. Connect a regulated DC power supply to the DC IN connector on the connector panel.
5. Turn on the power.
6. Insert an alignment tape HR2-1A.

Adjustment Procedure

1. Playback the alignment tape

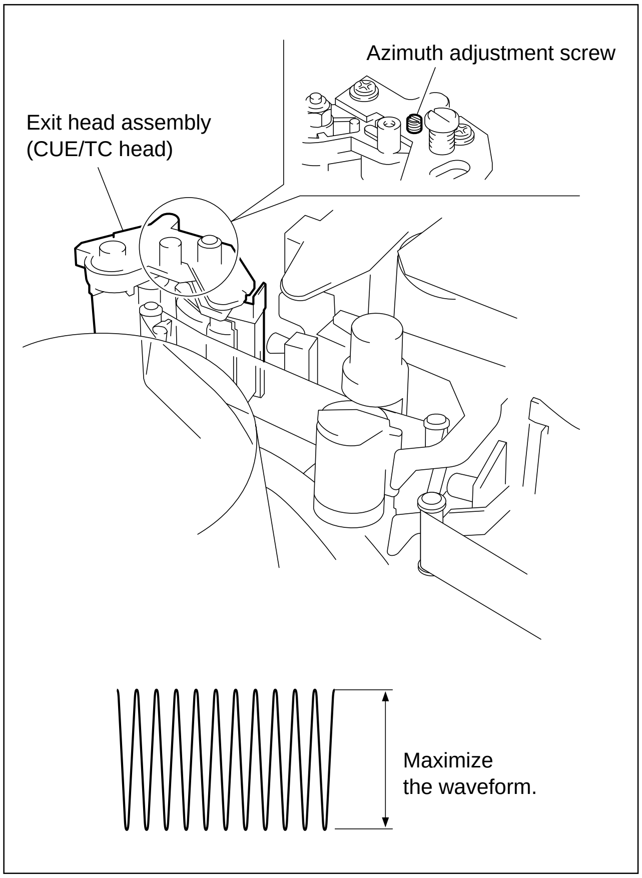
Play back the alignment tape HR2-1A (15:00 to 30:00).

2. CUE/TC head azimuth check

(1) Turn the azimuth adjustment screw clockwise or counterclockwise so that the output waveform is the maximum.
(2) Repeat the mode change from EJECT mode to PLAY mode 2 or 3 times. Check that the output level is the same as the level of the step (1) and does not change.
(3) Repeat the mode change from REV SEARCH mode to PLAY mode 2 or 3 times. Check that the output level is the same as the level of the step (1) and does not change.

Note

How to put into the REV SEARCH mode ;
While pushing the FUNC button, press the REW button once. (The speed of the REW SEARCH mode becomes 2 times the original speed (×2).)



3. CUE/TC head-to-tape contact check

Refer to Section 3-2-15.

4. CUE/TC head height check

Refer to Section 3-2-13.

5. CUE/TC head position re-check

Refer to Section 3-2-12.

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3-2-15. CUE/TC Head-to-tape Contact Adjustment

Note

The CUE/TC head-to-tape contact adjustment closely relates to the height adjustment, azimuth adjustment, and position adjustment.
Perform these adjustments (or checks) after the CUE/TC head-to-tape contact adjustment.

Tools

• Alignment tape HR2-1A	8-960-076-11
• Torque screwdriver bit (for M2)	J-6325-380-A
• Torque screwdriver (for 3 kg)	J-6325-400-A
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Connect an oscilloscope to the AUDIO OUT terminal.
   (1) Set the CH-3/4 switch on the connector panel to “MON”.
   (2) Set the MONITOR SELECT switch on the control panel to “CUE”.
   (3) Connect an oscilloscope to 2-pin of the AUDIO OUT terminal 3 or 4.

Note

Instead of connecting an oscilloscope to the AUDIO OUT terminal, the same signal can be obtained by the following procedure.

(1) Remove the battery case. (Refer to the Maintenance Manual Part 1, Setion “1-5. Removing and Reinstalling the Cabinets”.)
(2) Connect an oscilloscope to the following terminal on the EQ-76 board.
CH-1 : TP-707/EQ-76 (CUE PB)

4. Connect a regulated DC power supply to the DC IN connector on the connector panel.
5. Turn on the power.
6. Insert an alignment tape HR2-1A.

Checking Procedure

1. Playback the alignment tape

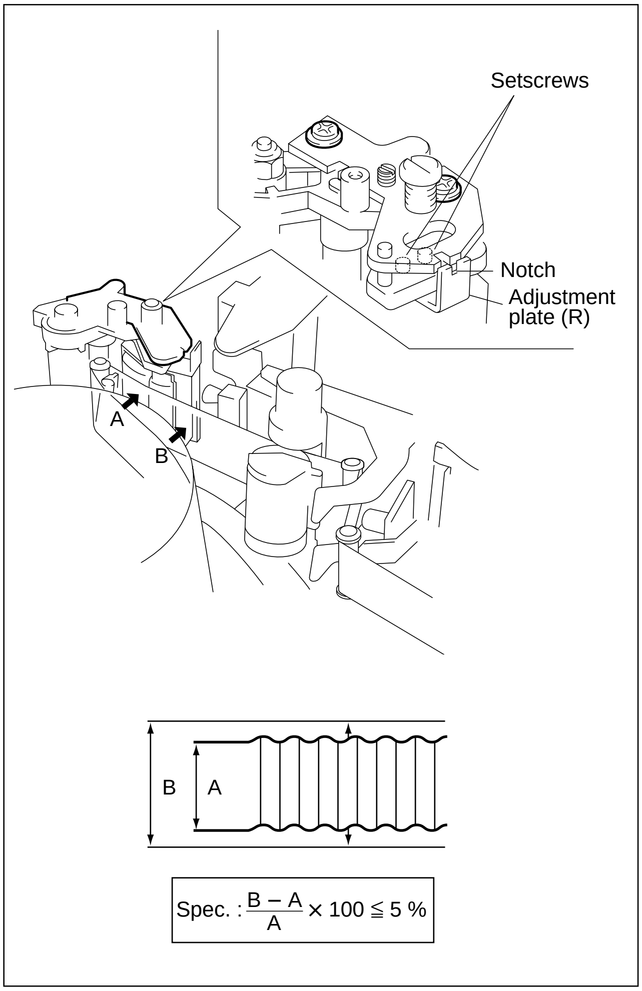
Play back the alignment tape HR2-1A (15:00 to 30:00).

2. CUE/TC head-to-tape contact check

(1) Gently push the positions A and B of the tape shown in the figure.

(2) Check that amount of increase in output level satisfies with the specification.
Specification ;
Amount of increase in output level must be 5 % or less.

When the specification is not satisfied, perform the adjustments from the step 3 and later.



Spec. : $\frac{B - A}{A} \times 100 \leqq 5\ \%$

Adjustment Procedure

3. CUE/TC head position adjustment

(1) Loosen the two head setscrews 1/4 to 1/2 turn.

(2) Insert a slotted head screwdriver (3 mm) into the notch of the adjustment plate (R).

(3) Adjust the CUE/TC head position using the screwdriver so that the output level is the maximum.

(4) While holding the screwdriver in the step (3), tighten the two screws.

4. CUE/TC head-to-tape contact re-check

Re-check according to the steps 1 and 2.

5. CUE/TC head azimuth adjustment

Refer to Section 3-2-14.

6. CUE/TC head-to-tape contact check

Refer to Section 3-2-15.

7. CUE/TC head height check

Refer to Section 3-2-13.

8. CUE/TC head position re-check

Re-check according to the checking procedure.
Refer to Section 3-2-12.

3-2-16. T-side Tape Running Check

Tools

Inspection mirror (Small oval type)	J-6080-840-A
Alignment tape HR2-1A	8-960-076-11
Cassette tape BCT-124HDL	Standard product

Checking Procedure

1. Play mode (Middle portion except beginning and last 5 minutes)

Put into the PLAY mode at the last portion of the BCT-124HDL.
Check that the tape running condition meets the specification 1 on the next page.

2. REV SEARCH mode (Middle portion except beginning and last 5 minutes)

Put into the REV SEARCH mode at the last portion of the BCT-124HDL.
Check that the tape running condition satisfies the specification 1.

3. F FWD mode (Middle portion except beginning and last 5 minutes)

Put into the F FWD mode at the last portion of the BCT-124HDL.
Check that the tape running condition satisfies the specification 1.

4. REW mode (Middle portion except beginning and last 5 minutes)

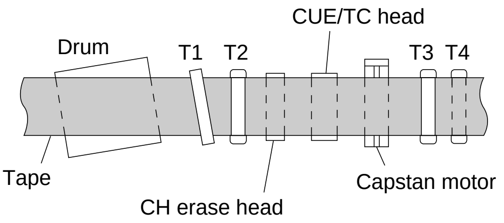
Put into the REW mode at the beginning portion of the BCT-124HDL.
Check that the tape running condition satisfies the specification 1.

5. Tape running check of the T2, T3, and T4 guides and lead on drum

Repeat from the steps 1 to 4 and check that the tape running condition at the T2, T3, and T4 guides and lead on drum satisfies the specification 1.

Specification 1

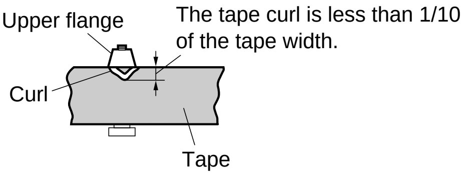
	Guide			Lead on drum
	T4	**T3**	**T2**	
Acceptable range of tape curl	Less than 1/10 of tape width	Less than 1/10 of tape width	Less than 1/10 of tape width	Not acceptable (No curl)
Tape contacting flange	Lower	Upper	Lower	–


CUE/TC head
Drum
T1
T2
T3
T4
Tape
Capstan motor
CH erase head

Acceptable range of tape curl

	Guide			Lead on drum
	T4	**T3**	**T2**	
Rev ×2 mode F FWD mode REW mode	Less than 1/10 of tape width	Not acceptable (No curl)	Less than 1/10 of tape width ∗1	Less than 1/10 of tape width ∗2

∗1 : Tape curl at the center of tape wrap is not acceptable.
∗2 : Tape curl should disappear within 0.5 second when the mode change is performed from each mode to PLAY.


Upper flange
The tape curl is less than 1/10
of the tape width.
Curl
Tape

6. Tape running check around the capstan

(1) Start REW (rewind) from the end (110 to 115 minutes portion) of the cassette tape (BCT-124HDL) and after a few seconds later, enter the PLAY mode.
Check that the tape satisfies the specifications 1 and 2 to run between the CUE/TC head and capstan when the mode is changed from REW to PLAY.
(2) Repeat the check from the step 1 twice or three times.
(3) Put into the F FWD mode, then put into the PLAY mode a few seconds later and check that the specifications 1 and 2 are satisfied during tape running.
(4) Put into the REV SEARCH mode, then put into the PLAY mode a few seconds later and check the specifications 1 and 2 are satisfied during tape running.

In the case of the out-of-specification in the above steps, perform the adjustments again from Section “3-2-11. T3 Guide Height Adjustment”.

Specification 2

There must be no wrinkle on the tape.
The tape should not be damaged even if there are wrinkles.

3-2-17. PG Phase Adjustment

Tools

- Alignment tape HR2-1A 8-960-076-11
- Oscilloscope
- Regulated DC power supply (AC-550 or equivalent)

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Set the DIP switches. (Refer to Section “3-2-4. DIP Switch Setting”.)
4. Open the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section “1-12. Tracking Adjustment and Audio Meter Brightness Adjustment”.)
5. Connect an oscilloscope to the following terminal on the MB-825 board.
   CH-1 : TP5/MB-825 (REC A)
   CH-2 : TP4/MB-825 (CF)
6. Connect a regulated DC power supply to the DC IN connector on the connector panel.
7. Turn on the power.
8. On the setup menu, set AUTO TRACKING to OFF.
9. Insert an alignment tape HR2-1A.
10. Turn the tracking control volume to the mechanical center (click position).

Adjustment Procedure

1. Playback the alignment tape

Play back the alignment tape HR2-1A (25:00 to 27:00).

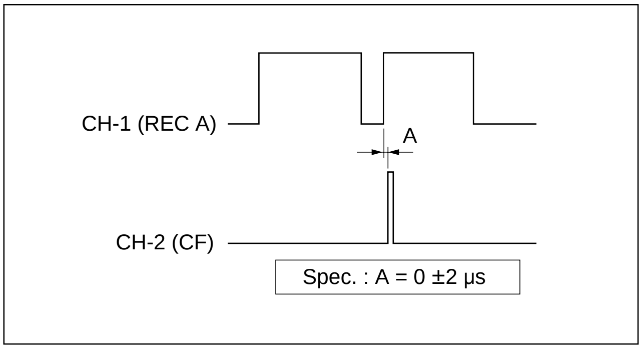
2. <DRUM PG> menu setting

(1) To display the DIAG menu on the display, press the DIAG button using a tip of a straightened-out paper clip or similar object.

(2) Move the cursor (∗) to the menu as follows and press the SET button each time.
“TEST” → “TTP” → SET → “PATH” → SET → “CTL PHS” → SET → “REC” → SET → “EXIT” → SET → “ADJUST” → SET → “ADJUST” → SET → “DRUM PHASE” → SET

3. PG adjustment

While checking the screen of the oscilloscope, adjust the time A to meet the specification shown in the figure by pressing the UP/DOWN button.



4. Data writing

(1) Move the cursor to “EXIT” on the DIAG menu and press the SET button.

(2) Move the cursor to “NV RAM” on the DIAG menu and press the SET button.

(3) Move the cursor to “SV DATA SAVE” and press the SET button.
When the data writing is complete, “OK” appears.

5. Check

(1) Eject the alignment tape and turn off the power.

(2) Turn on the power and play back the alignment tape (from 25:00 to 27:00).

(3) Perform the step 2 and check that the time A in the screen of the oscilloscope meets the specification.

3-2-18. CTL Head Position Check

Tools

• Alignment tape HR2-1A	8-960-076-11
• Oscilloscope	
• Regulated DC power supply (AC-550 or equivalent)	

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Open the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section “1-12. Tracking Adjustment and Audio Meter Brightness Adjustment”.)
4. Connect a regulated DC power supply to the DC IN connector on the connector panel.
5. Turn on the power.
6. On the setup menu, set AUTO TRACKING to OFF.
7. Insert an alignment tape HR2-1A.
8. Set the color frame switch on the connector panel to ON.

Checking Procedure

1. Oscilloscope setting (1)

Connect an oscilloscope to the following terminals on the MB-825 board.

CH-1 : TP5/MB-825 (REC A)
CH-2 : TP1/MB-825 (CTL)
TRIG : TP4/MB-825 (CF)

2. Playback the alignment tape

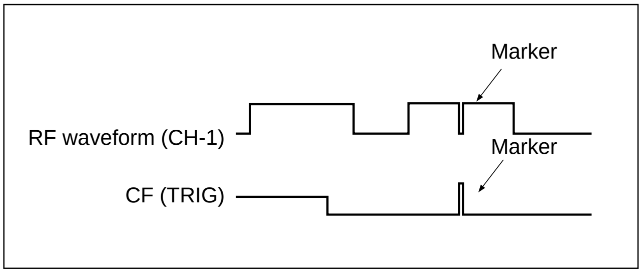
Play back the alignment tape HR2-1A (from 00:00 to 15:00).

3. CTL head position check (1)

(1) Menu setting
Perform the step 2-(1) of the Section 3-2-3.

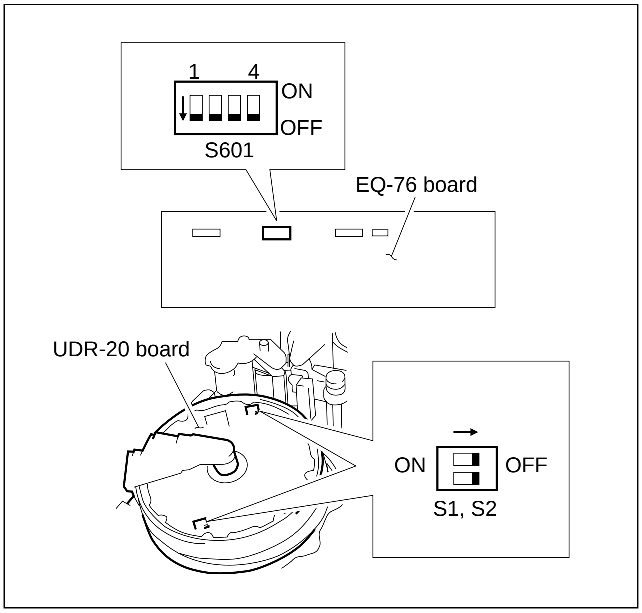
(2) Check that the output level at the center of the RF waveform is the maximum at the center click position of the tracking control volume .

(3) Check that the marker on the RF waveform is at the position in the figure.



3-2-19. DIP Switch Re-setting

1. Turn off the power of the HDW-250.
2. Set all four bits of DIP switches S1 and S2 on the UDR-20 board to OFF.
3. Set the switch S601-1 on the EQ-76 board to OFF.
4. Turn on the power of the HDW-250.


1
4
ON
OFF
S601
EQ-76 board
UDR-20 board
ON
OFF
S1, S2

3-2-20. Self REC/PB Output Waveform Check

Tools

- Cassette tape BCT-40HD
- Cassette tape BCT-124HDL
- Oscilloscope
- Regulated DC power supply
  (AC-550 or equivalent)

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)
3. Opent the L SUB cover on the left side plate. (Refer to the Maintenance Manual Part 1, Section "1-12. Tracking Adjustment and Audio Meter Brightness Adjustment".)
4. Connect an oscilloscope to the following terminals on the MB-825 board.
   CH-1 : TP7/MB-825 (AE)
   TRIG : TP4/MB-825 (CF)

5. Connect a regulated DC power supply to the DC IN connector on the connector panel.
6. Turn on the power.
7. On the setup menu, set AUTO TRACKING to OFF.

Checking Procedure

1. Recording the test signal (1)

(1) To display the DIAG menu on the display, press the DIAG button of the front panel using a tip of a straightened-out paper clip or similar object.
(2) Move the cursor (✻) to "TEST" on the menu, and press the SET button.
(3) Move the cursor to "TTP", and press the SET button.
(4) Move the cursor to "PATH", and press the SET button.
(5) Move the cursor to "REC TEST", and press the SET button.
(6) To display the "2AH" to the right side of "REC TEST", press the UP/DOWN button several times. Then, test signal for all of the video channels is generated.
(7) Insert a blank tape (BCT-40HD or BCT-124HDL) and press the REC and PLAY button simultaneously to record the test signal.
(8) Record the signal about 5 minutes and rewind the tape.
(9) Play back the recorded portion of the test signal.

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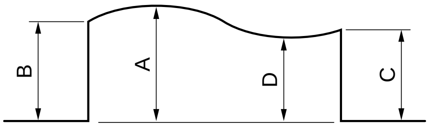
2. Output waveform check of A-channel/E-channel

(1) Check that the envelope waveform on the oscilloscope satisfies the specification 1.

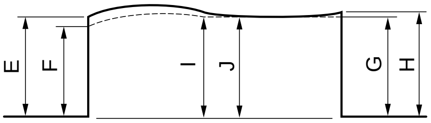


Spec.1 : The output level of the waveform must be 80 % or more of the maximum.

$$\frac{B}{A} \geqq 0.8,\ \frac{C}{A} \geqq 0.8,\ \frac{D}{A} \geqq 0.8$$

Portion B is the rising width, C is the falling width, and D is the minimum width respectively of the output waveform.

(2) Check that the envelope waveform satisfies the specification 2.



Spec.2 : The maximum fluctuation at each portion of the waveform must be 10 % or less.

$$\frac{F}{E} \geqq 0.9,\ \frac{G}{H} \geqq 0.9,\ \frac{I}{J} \geqq 0.9$$

Portions F and S are the rising width, G and H are the falling width, and I and J are the center width of the waveform respectively. They indicate the maximum and the minimum amplitudes of the waveform deviation.

3. Output waveform check of C-channel/G-channel

Connect the CH1 of the oscilloscope to the TP8 on the MB-825 board and perform the same check as the step 2.

4. Output waveform check of B-channel/F-channel and D-channel/H-channel

(1) Connect the CH1 of the oscilloscope to the TP9 on the MB-825 board and perform the same check as the step 2.

(2) Connect the oscilloscope CH1 to the TP10 on the MB-825 board and perform the same check as the step 2.

5. Waveform check

If the waveform does not appear partly or at all, check that the drum harnesses and other connectors are connected correctly. Then, check the waveform again. If the waveform is not still output, run the cleaning tape. (Use a BCT-HD12CL. After inserting it, the tape runs and is ejected automatically.)
If a waveform is not output after the cleaning tape runs three times, replace the drum assembly.

3-2-21. Locking Compound

After the tape path adjustments are completed, apply a locking compound on the following portions.

Note

Never apply the locking compound on the tape running surface or hexagonal hole of the setscrew.

1. Guide

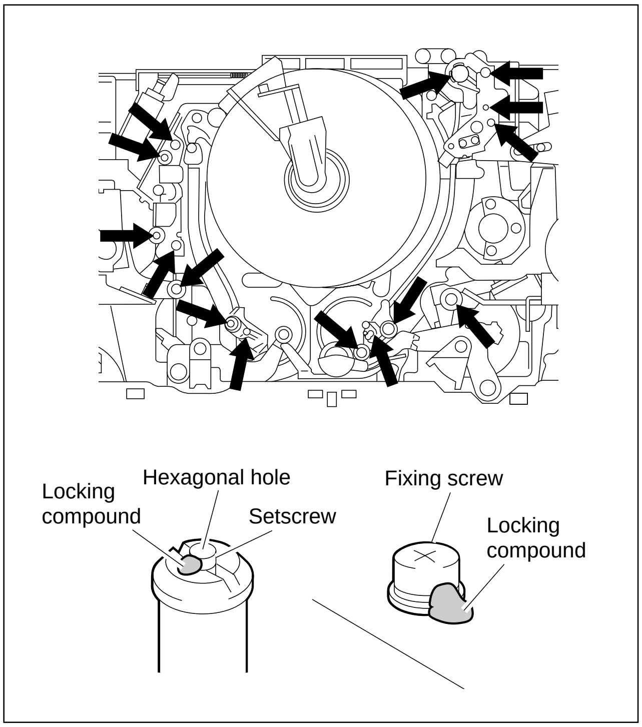
- S1 guide slantness adjustment screws (2 pcs)
- Setscrew of S2 guide
- Setscrew of S5 guide
- T1 guide slantness adjustment screws (2 pcs)
- Setscrew of T2 guide
- Setscrew of T3 guide
- Setscrew of T4 guide

2. Entrance head assembly

- Height adjustment nut
- Fixing screws (2 pcs)
- Setscrew of S3 guide

3. CUE/TC head assembly

- Height adjustment nut
- TC head position adjustment screws (2 pcs)
- CUE head mounting screws (2 pcs)
- Azimuth/Zenith adjustment screw



3-3. Mechanical Alignment

3-3-1. Tension Regulator Adjustment

Note

Perform this adjustment on a table in a horizontal position without a slope.

Tools

• FWD back tension measuring cassette	J-6323-890-A
• S-tension arm positioning pin	J-7031-030-A
• Weight for S-tension adjustment (W76.4)	J-7031-040-A
• Weight for S-tension adjustment (W44)	J-7031-050-A
• S-TEN adjusting table	J-7031-280-A
• End sensor positioning tool	J-7031-450-B
• Digital volt meter	
• Cassette tape BCT-124HDL	Standard product
• Regulated DC power supply (AC-550 or equivalent)	

Setting

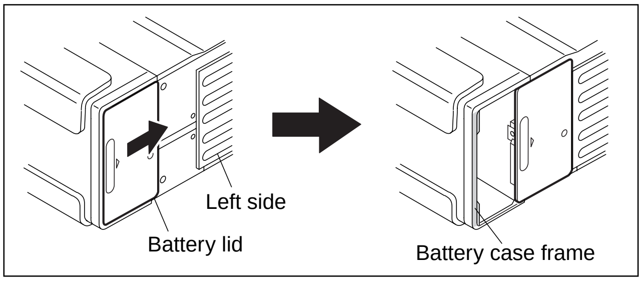
1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part1, Section “1-5. Removing and Reinstalling the Cabinets”.)
3. Set the S-TEN adjusting table on the horizontal table.
4. Open the battery lid at the left side of the unit.
5. Hold the unit with its left side facing downward, and then place it as shown in the figure so that the battery case frame of the unit is fitted into the groove of the S-TEN adjusting table.

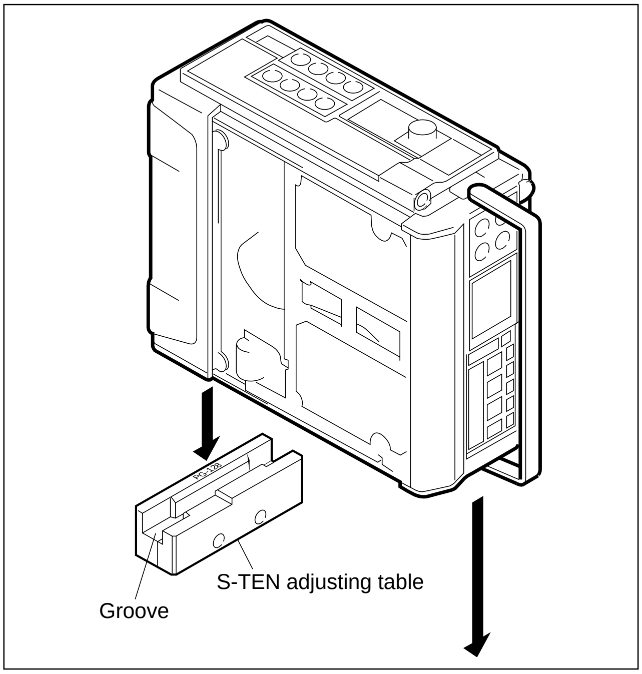
   Note

   Make sure that the inscription (PG-128) on the S-TEN adjusting table is visible from outside.

6. Connect a digital volt meter.
   Prove (+) : “TP3” on the MB-825 board
   Prove (−) : “E1” on the MB-825 board

7. Connect a regulated DC power supply to the DC IN connector on the connector panel.
8. Turn on the power.
9. Check that the MODE switch on the connector panel is set to the mode other than “SAVE”.



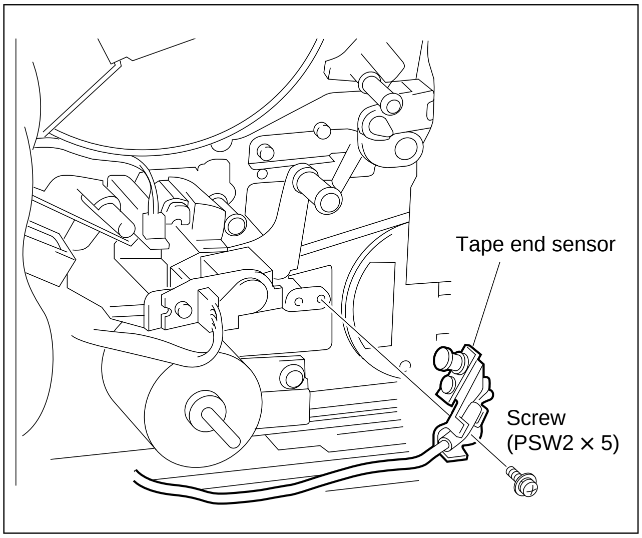


Adjusting Procedure

1. Tape end sensor removal

(1) Loosen the screw fixing the tape end sensor.

(2) Detach the tape end sensor from the tension regulator.



2. DME position adjustment

(1) Insert the S-tension arm positioning pin into the hole on the mechanical plate shown in the figure to restrict the movement of the S-tension arm.

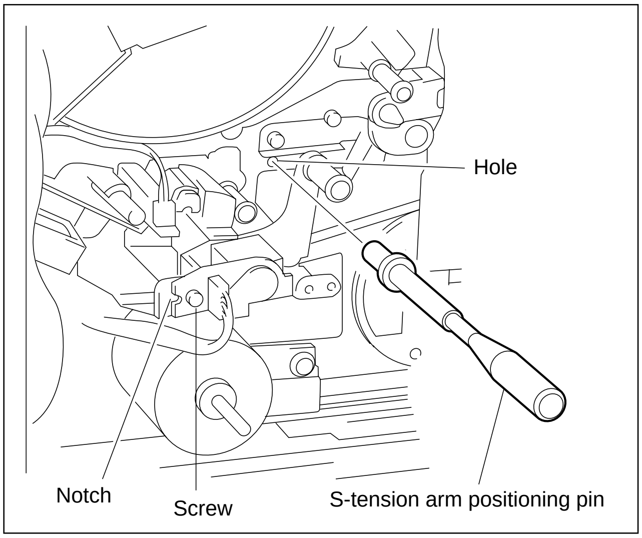
(2) Loosen the screw fixing the TR-57 board 1/4 to 1/2 turn.

(3) Set a flatbrade screwdriver to the notch of the TR-57 board.

(4) Turn the screwdriver and adjust the position of the TR-57 board so that it meet the specificasion.
Spec. 1.63 ± 0.02 V (Digital volt meter)

(5) While holding the screwdriver in the step (4), tighten the screw.

(6) Remove the S-tension arm positioning pin.



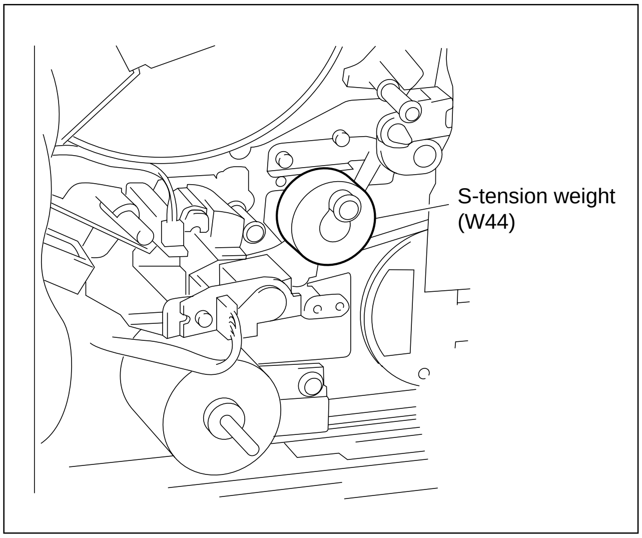
3. Spring position adjustment

(1) Hook the S-tension weight (W44) to the tension regulator guide (S5 guide).

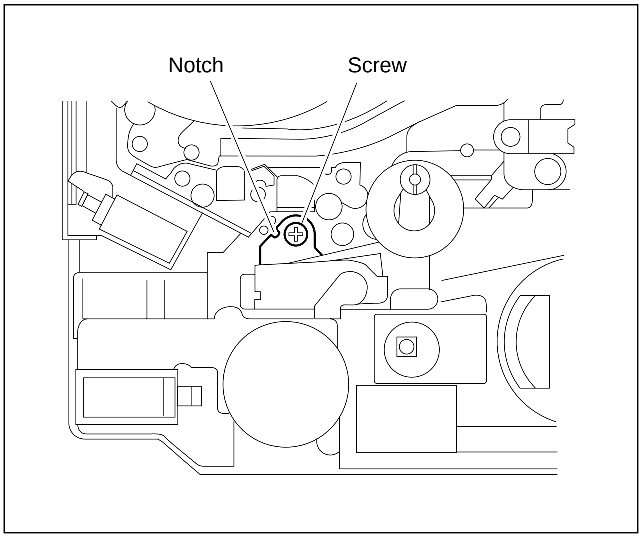
(2) Push down the S-tension arm until it stops.

(3) Softly release the pushed S-tension arm.

(4) Swing the S-tension weight (W44) a few times, and then quiet it using a finger softly.



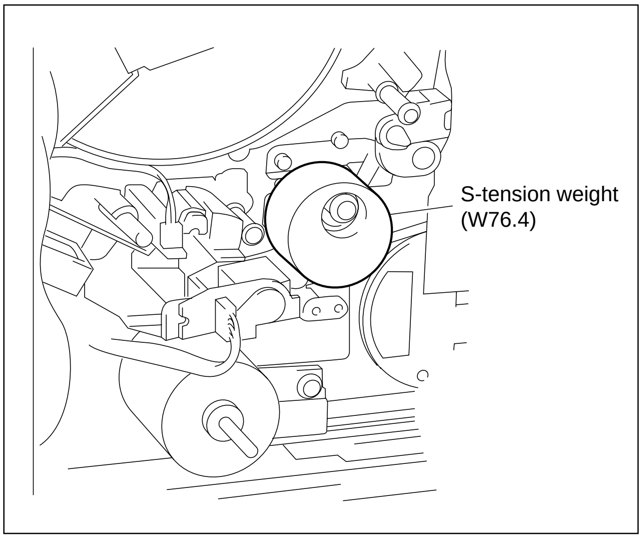
(5) Loosen the screw fixing the tension adjustment plate 1/4 to 1/2 turn.
(6) Set a flatbrade screwdriver to the notch of the tension adjustment plate.
(7) Turn the flatbrade screwdriver and adjust the position of the tension adjustment plate so that it meet the specification.
Spec. : 1.63 ±0.03 V (Digital volt meter)



(8) While holding the flatbrade screwdriver in the step (7), tighten the screw.
(9) Perform the adjustment from the steps (2) to (4) of "3. Spring position adjustment" again, and check that the specification is satisfied.
(10) Remove the S-tension weight (W44) from the tension regulator guide (S5 guide).

4. Gain adjustment

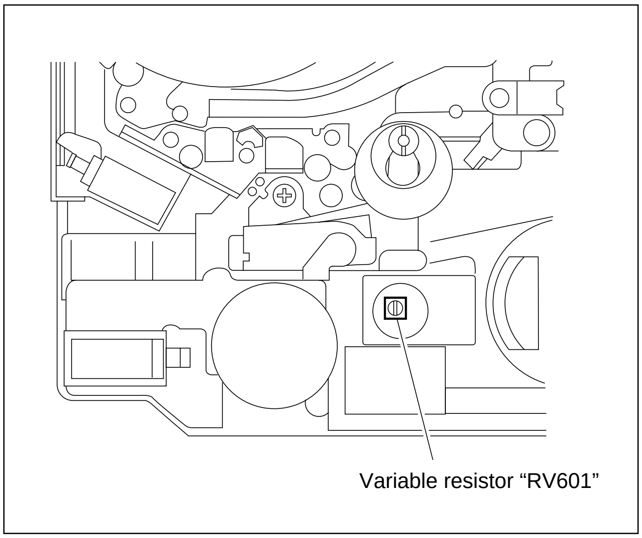
(1) Hook the S-tension weight (W76.4) to the tension regulator guide (S5 guide).
(2) Push down the S-tension arm until it stops.
(3) Softly release the S-tension arm.
(4) Swing the S-tension weight a few times, and then quiet it using a finger softly.



(5) Check that the voltage at the RV601 on the SST-13 board meets the specification.
When the voltage is without the specification, adjust the RV601.
Spec. : 2.23 ±0.03 V (Digital volt meter)

After adjusting the RV601, perform from the "Spring position adjustment" of step 3.

(6) Remove the S-tension weight (W76.4) from the tension regulator guide (S5 guide).

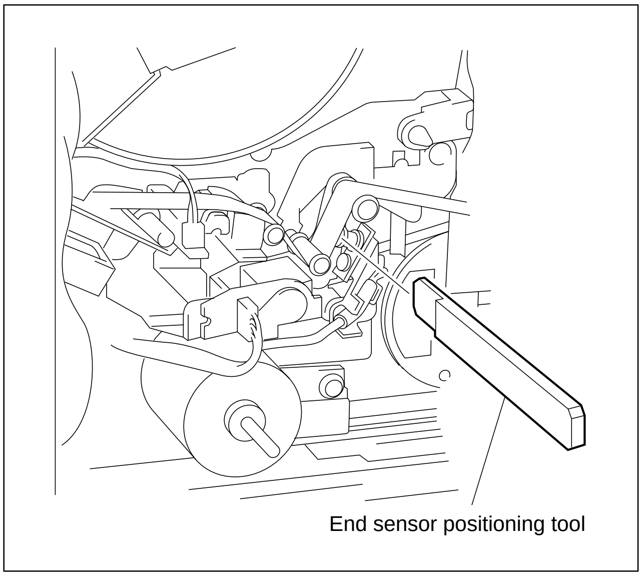


5. Tape end sensor position adjustment

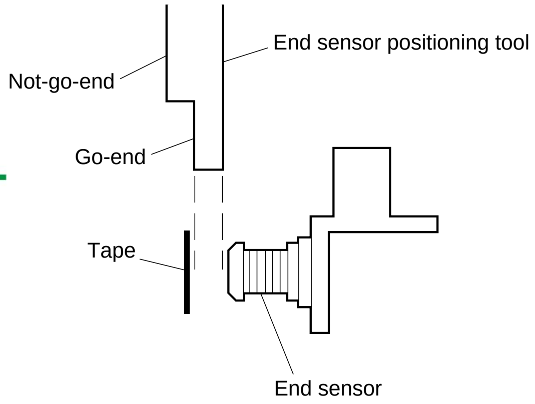
Note

When position adjustment of the tape end sensor is performed, it can damage the tape being used. Use the cassette tape which may be damaged.

(1) Install the tape end sensor and tighten the screw temporarily.
(2) Insert a blank cassette tape into the cassette compartment.
(3) Press the PLAY button and run the tape.
(4) Set the flat side of the end sensor positioning tool to contact to the tip of the tape end sensor.



(5) Check that the thin portion (go-end) of the positioning tool does not touch the tape.
(6) Check that the thick portion (not-go-end) of the positioning tool does not pass through between the tape and the tape end sensor.
(7) Adjust the position of the tape end sensor so that it meets the specifications shown in the steps (5) and (6).
(8) Fix the tape end sensor, and tighten the screw which is tightened temporarily.
(9) Push the EJECT button and remove the tape.



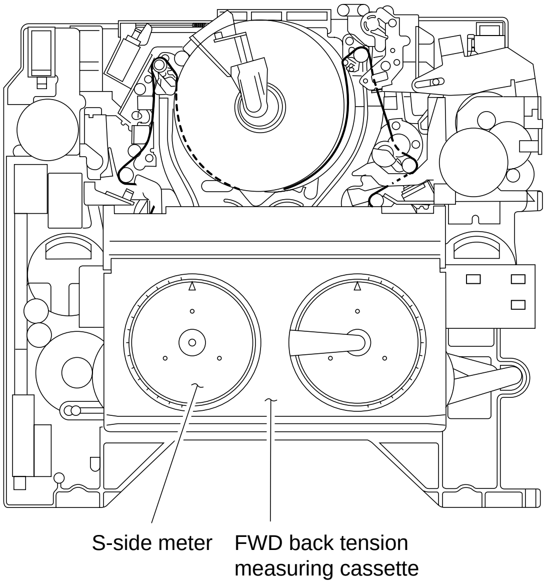
6. Cleaning

Clean the S-tension guide (S5 guide) using a cleaning cloth moistened with cleaning fluid.

7. Tape tension check

(1) Insert a FWD back tension measuring cassette into the cassette compartment, and put into the recording mode.
(2) Check that the tension shown in the S-side meter meets the specificasion.
Spec. : 0.73 to 0.83 × 10^{-2} N•m (74 to 85 gf•cm)

If it does not meet the specification, repeat the adjustments from the step1 later again.



3-3-2. CUE/TC Head Zenith Adjustment

Tools

• Reference flat plate	J-6086-570-A
• Cleaning cloth	3-184-527-01
• Cleaning fluid	9-919-573-01
• Thickness gauge	9-911-053-00

Setting

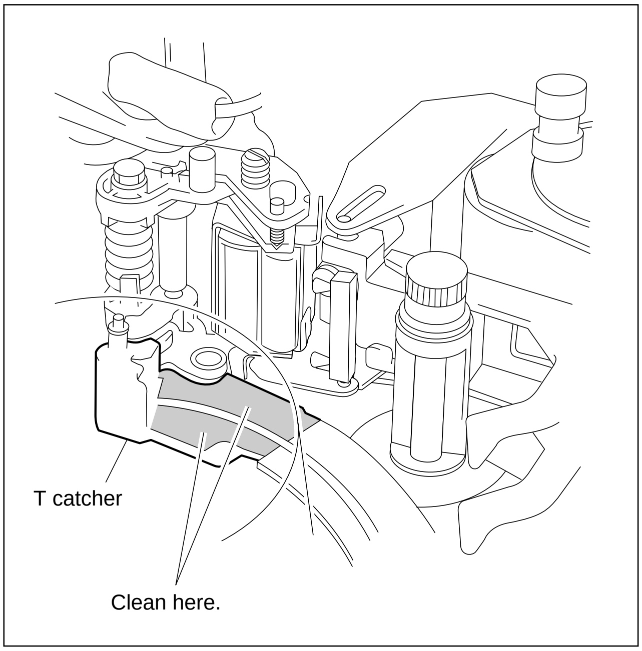
1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)

Adjustment Procedure

1. Cleaning

(1) Clean the rail of the T catcher using the cleaning cloth moistened with cleaning fluid.

(2) Clean the entire surface of the reference flat plate using the cleaning cloth moistened with cleaning fluid.

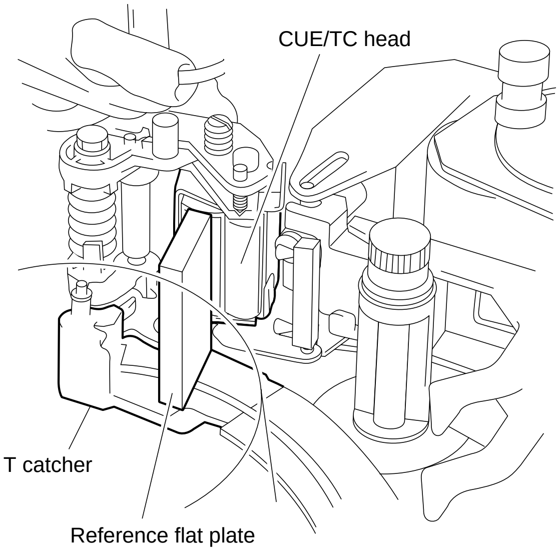


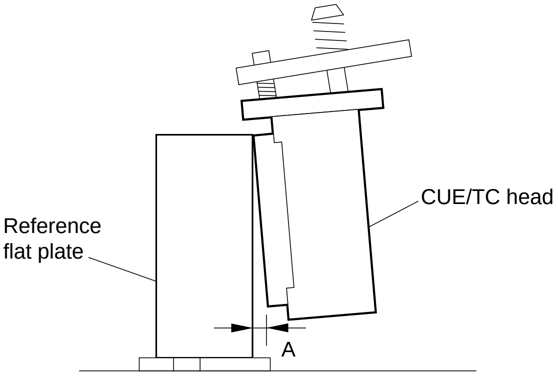
2. CUE/TC Head Zenith Check

(1) Place the reference flat plate on the rail of the T catcher.
(2) Rotate the manual eject gear until the CUE/TC head comes on the rail of the T catcher.
(3) Contact the reference flat plate with the CUE/TC head and check that the amount of the CUE/TC head zenith satisfies the specifications.

Specifications :

Clearance at the bottom : 0.05 mm < A < 0.10 mm
(The thickness gauge of 0.05 mm must pass through the bottom clearance and that of 0.10 mm must not pass through.)
Clearance at the top : None


CUE/TC head
T catcher
Reference flat plate


CUE/TC head
Reference
flat plate
A

Spec.: Clearance at the bottom 0.05 mm < A < 0.10 mm
Clearance at the top None

3. CUE/TC head zenith adjustment

When the amount of the CUE/TC head zenith does not satisfy the specifications, turn the CUE/TC zenith adjustment screw to adjust the amount of zenith.

4. Cleaning the CUE/TC head

(1) Clean the rail of the CUE/TC head using the cleaning cloth moistened with cleaning fluid.
(2) Clean the rail of the CUE/TC head using the dry cleaning cloth.

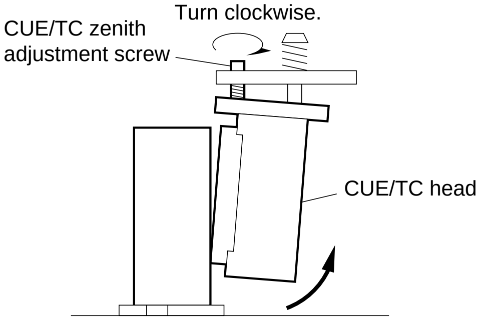
5. CUE/TC head height adjustment

Refer to Section 3-2-13.

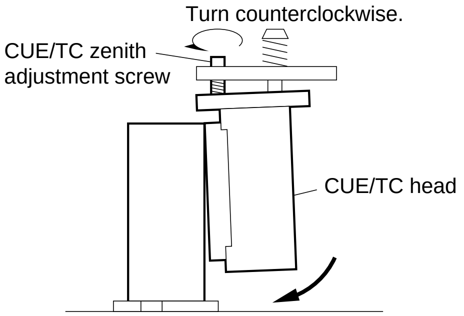
6. CUE/TC head azimuth adjustment

Refer to Section 3-2-14.

- When there is a clearance at the top
- When the portion A is small


Turn clockwise.
CUE/TC zenith adjustment screw
CUE/TC head

- When the portion A is large


Turn counterclockwise.
CUE/TC zenith adjustment screw
CUE/TC head

3-3-3. S2/T2 Guide Slantness Adjustment

Tools

• Master block (T2)	J-7031-260-A
• Master block (S2)	J-7031-270-A
• Cleaning cloth	3-184-527-01
• Thickness gauge	9-911-053-00
• Cleaning fluid	9-919-573-01

Setting

1. Turn off the power.
2. Remove the top panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)

Adjustment Procedure

1. Removing the drum

Remove the drum assembly. (Refer to Section 2-5.)

2. Removing the video head cleaner assembly

Note

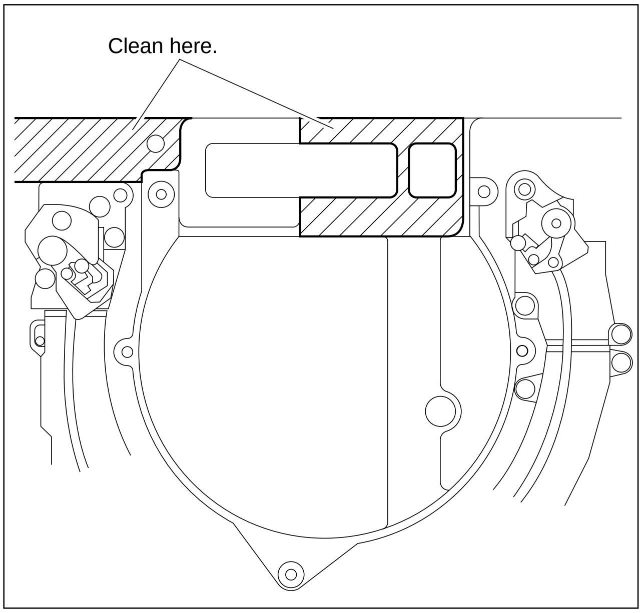
This procedure is necessary to perform the S2 guide slantness adjustment, but it is unnecessary to perform the only T2 guide slantness adjustment.

Remove the video head cleaner assembly. (Refer to Section 2-8.)

3. Cleaning

Clean the following portions using the cleaning cloth moistened with cleaning fluid.

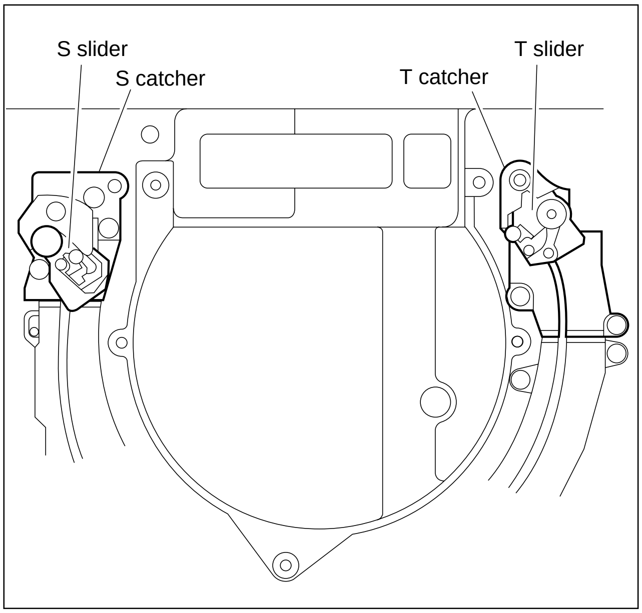
- The place where the video head cleaner assembly is attached
- The place where the drum is attached
- The entire surface of the master block (S2)
- The entire surface of the master block (T2)


Clean here.

http://getMANUAL.com

4. Mode setting

While pulling the brake releasing lever to the front, rotate the manual eject lever clockwise until the unit is put into the threading end mode (the state which the sliders at the S side and T side reach the catchers respectively).



5. S2 guide slantness adjustment

(1) Attach the master block (S2) as shown in the figure.

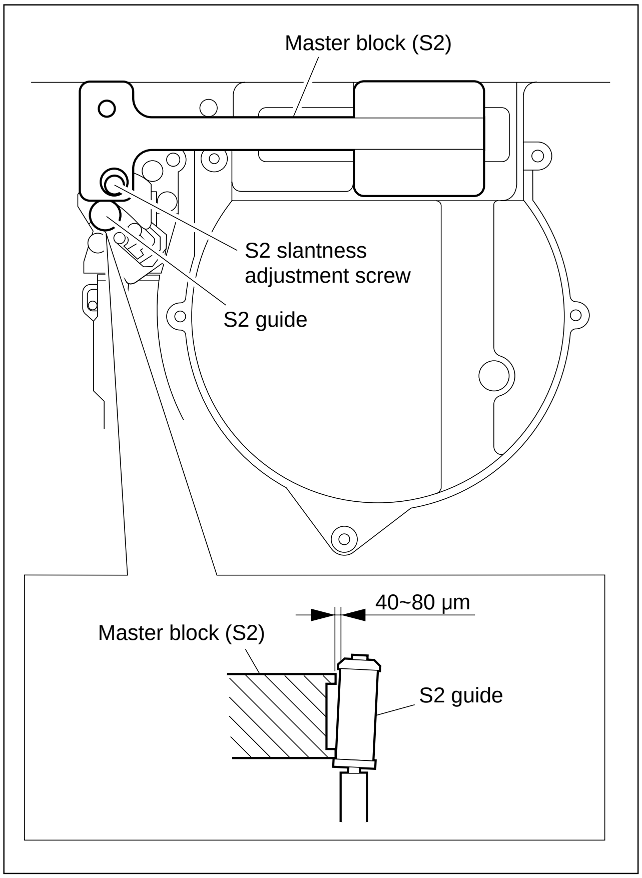
(2) Contact the gauge of the master block (S2) with the roller of the S2 guide gently, and check that the specification 1 is satisfied.
Specification 1:
- There must be no clearance between the bottom of the S2 guide roller and the gauge.
- There must be clearance between the top of the S2 guide roller and the gauge, and the thickness gauge of 0.03 mm must pass through the clearance.
- There must be clearance between the top of the S2 guide roller and the gauge, and the thickness gauge of 0.07 mm must not pass through the clearance.

(3) When the slantness of the S2 guide does not satisfy the specifications, turn the S2 slantness adjustment screw to adjust the slantness.

Note

A clockwise turn of the S2 slantness adjustment screw decreases the clearance at the top of the roller.
A counterclockwise turn of the S2 slantness adjustment screw increases the clearance at the top of the roller.

(4) Remove the master block (S2).



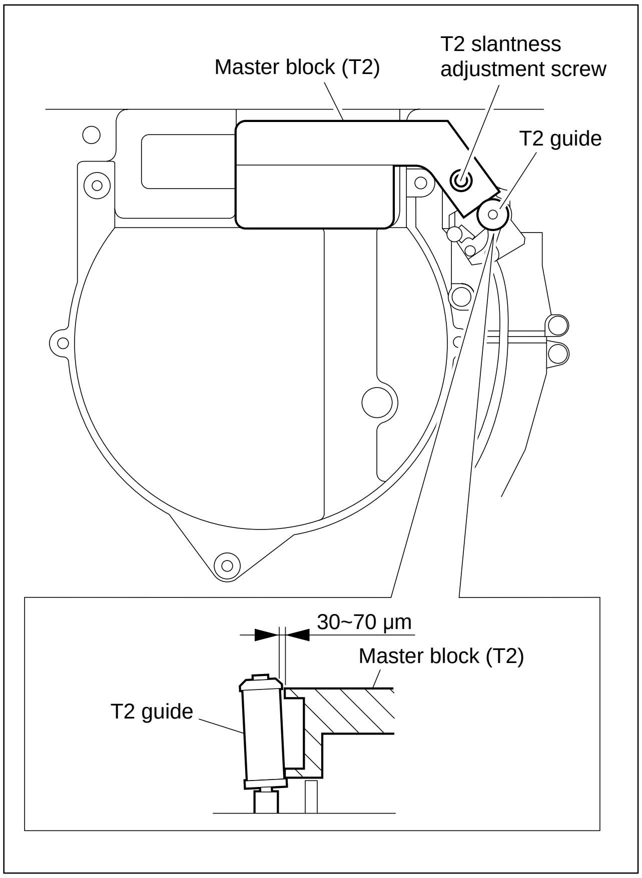
6. T2 guide slantness adjustment

(1) Attach the mater block (T2) as shown in the figure.

(2) Contact the gauge of the master block (T2) with the roller of the T2 guide gently, and check that the specification 2 is satisfied.

Specification 2 :

- There must be no clearance between the bottom of the T2 guide roller and the gauge.
- There must not be clearance between the top of the T2 guide roller and the gauge, or the thickness gauge of 0.04 mm must not pass through the clearance when there is a clearance between the top of the T2 guide roller and the gauge.



(3) When the slantness of the T2 guide does not satisfies the specifications, turn the T2 slantness adjustment screw to adjust the slantness.

Note

A clockwise turn of the T2 slantness adjustment screw decreases the clearance at the top of the roller.

A counterclockwise turn of the T2 slantness adjustment screw increases the clearance at the top of the roller.

(4) Remove the master block (T2).

7. Mode re-setting

While pulling the brake releasing lever to the front, rotate the manual eject lever clockwise until the unit is put into the threading end mode.

8. Video head cleaner assembly installation

Attach the video head cleaner assembly.
(Refer to Section 2-8.)

Note

When the video head cleaner assembly is not removed at the step 2, this procedure is unnecessary.

9. Drum installation

Attach the drum. (Refer to Section 2-5.)

10. Cleaning

Clean the S2 guide, T2 guide, and tape running surface using the cleaning cloth moistened with cleaning fluid.

11. Tape path adjustment

Perform the tape path adjustment. (Refer to Section 3-1-1.)

Section 4

Circuit Boards Replacement

4-1. General Information on Replacing Boards

List of board replacements

Board name	Section	Adjustment
ADA-44	4-5	○
CC-82	4-14-3	○
CN-1752	4-10	×
CN-1795	4-11	×
CP-337	4-14-1	○
DCP-22	4-2-4	○
DPR-125	4-2-3	×
DUS-173	4-14-2	×
EQ-76	4-6	○
FU-76	4-8	○
KY-315	4-4	×
MB-825	4-9	×
PSW-67	4-7	×
PSW-68	4-7	×
PSW-69	4-7	×
PSW-70	4-7	×
RX-46A	4-2-2	×
SST-13	4-3	○
TX-68A	4-2-2	×
VPR-53	4-2-5	○
VR-194	4-12	×
VR-254	4-14-4	×
VR-206	4-13	×

For the adjustments after replacing boards, refer to Section “5-1-6. Adjustment after Replacement of Boards and/or Blocks.”

4-2. Replacing the Video Board Assembly

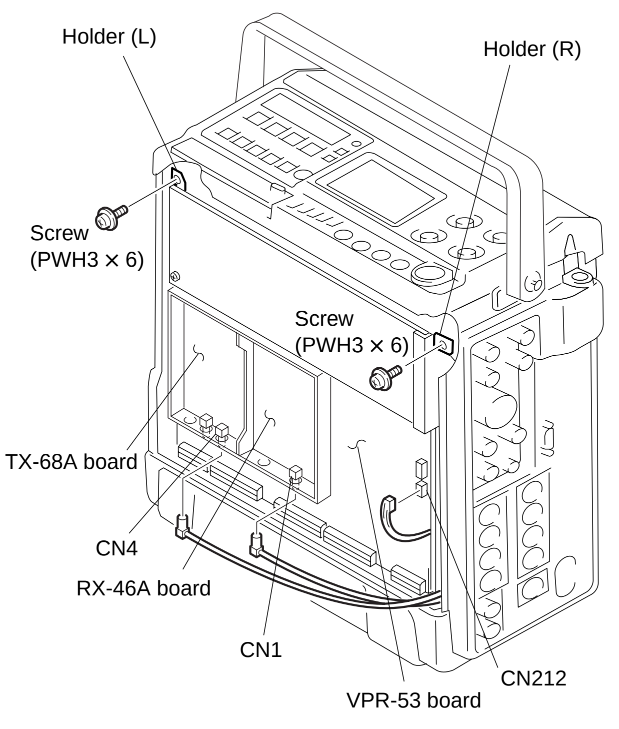
Note

Video board assembly : DCP-22 board, DPR-125 board, RX-46A board, TX-68A board, VPR-53 board

4-2-1. Opening/Removing the Video Board Assembly

Opening the Video Board Assembly

1. Remove the bottom plate.
   (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets” .)
2. Disconnect the harness from the connector CN212 on the VPR-53 board.
3. Disconnect the harness from the connector CN1 on the RX-46A board.
4. Disconnect the harness from the connector CN4 on the TX-68A board.
5. Remove the two screws that secure the holder (L) and holder (R).

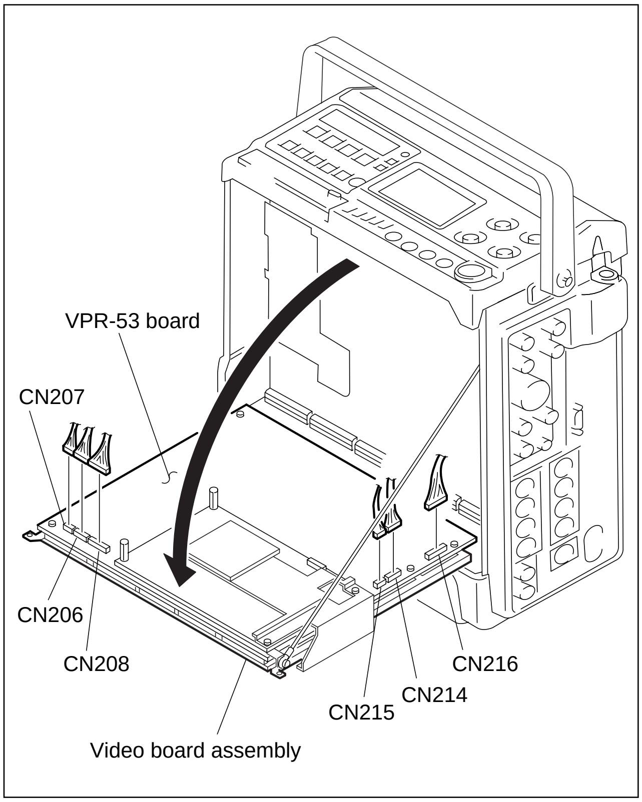


6. Slowly open the video board assembly in the direction of the arrow.

   Note

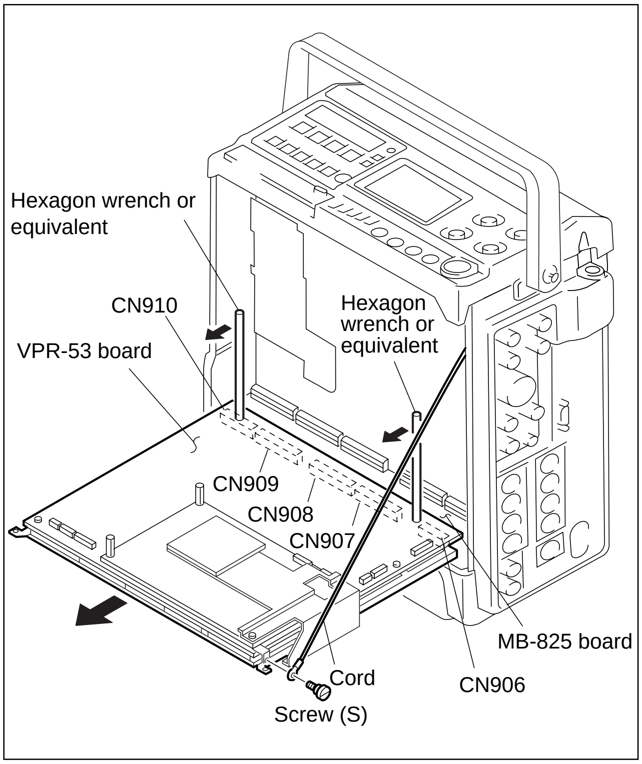
   To avoid damage the harness connectors, be sure to slowly open it.

7. Disconnect the harnesses from the connectors CN206 to CN208 and CN214 to CN216 on the VPR-53 board.


VPR-53 board
CN207
CN206
CN208
CN216
CN214
CN215
Video board assembly

Removing the Video Board Assembly

1. Open the video board assembly. (Refer to Section 4-2-1.)
2. Remove the screw to remove the cord.
3. Put hexagon wrenches (across 1.5 mm) or equivalent into the two holes on the VPR-53 board, pull it in the direction of the arrow to disconnect the connectors CN906 to CN910 connected to the MB-825 board.


Hexagon wrench or equivalent
CN910
Hexagon wrench or equivalent
VPR-53 board
CN909
CN908
CN907
MB-825 board
Cord
CN906
Screw (S)

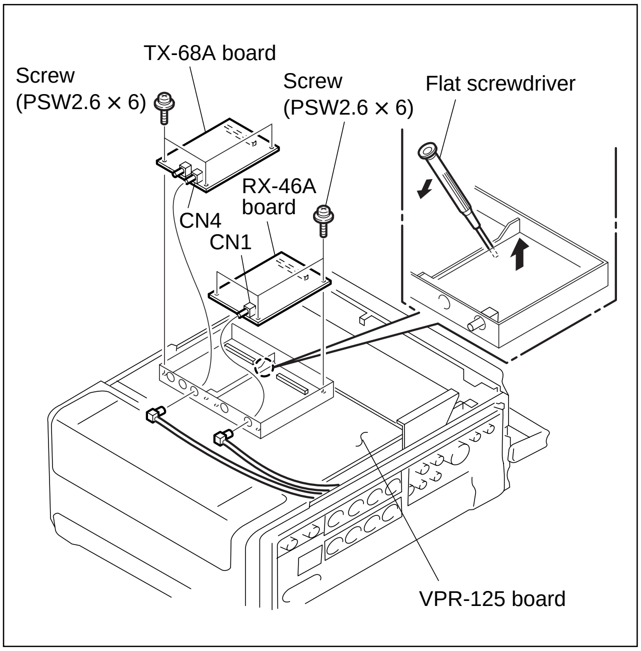
4-2-2. Replacing the RX-46A and TX-68A

Removal

1. Remove the bottom plate.
   (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)
2. Disconnect the harness from the connector CN1 on the RX-46A board.
3. Remove the three screws to remove the RX-46A board.
4. Disconnect the harness from the connector CN4 on the TX-68A board.
5. Remove the three screws to remove the TX-68A board.

Note

If a board cannot be removed easily, lift the board using the flat screwdriver.


TX-68A board
Screw
(PSW2.6 × 6)
Screw
(PSW2.6 × 6)
Flat screwdriver
RX-46A
board
CN4
CN1
VPR-125 board

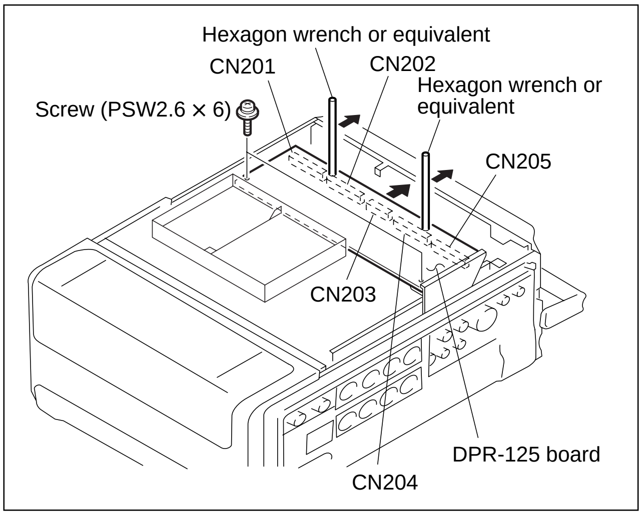
Installation

Attach the new RX-46A and TX-68A boards in reverse order of steps 1 through 5.

4-2-3. Replacing the DPR-125 Board

Removal

1. Remove the bottom plate.
   (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)
2. Remove the two screws, and then put hexagon wrenches (across 1.5 mm) or equivalent into the two holes on the DPR-125 board, pull them in the direction of the arrow to disconnect the connectors CN201 to CN205 connected to the VPR-53 board.


Hexagon wrench or equivalent
CN201
CN202
Hexagon wrench or
equivalent
Screw (PSW2.6 × 6)
CN205
CN203
DPR-125 board
CN204

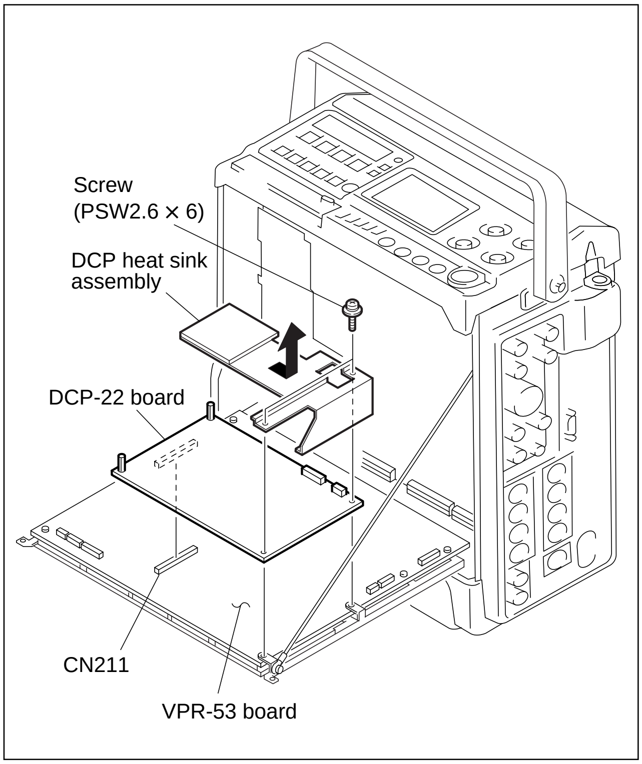
Installation

Attach a new DPR-125 board in reverse order of steps 1 through 2.

4-2-4. Replacing the DCP-22 Board

Removal

1. Remove the bottom plate. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Open the video board assembly.
(Refer to Section 4-2-1.)
3. Remove the two screws, and then remove the DCP heat sink assembly in the direction of the arrow.
4. Disconnect the connector CN211 connected to the VPR-53 board.


Screw
(PSW2.6 × 6)
DCP heat sink assembly
DCP-22 board
CN211
VPR-53 board

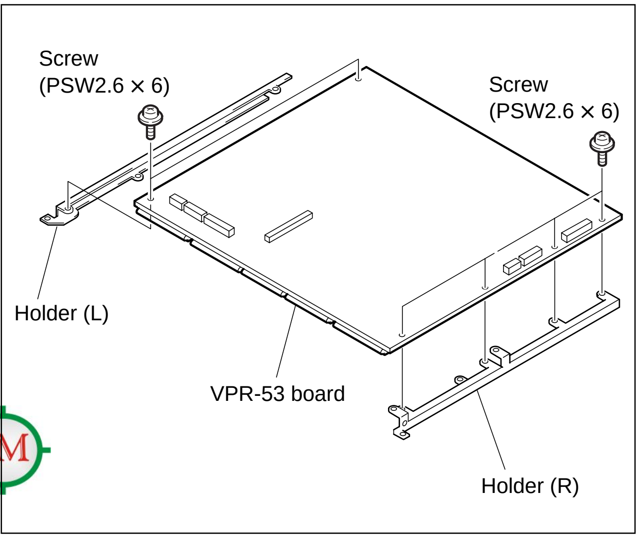
Installation

Attach a new DCP-22 board in reverse order of steps 1 through 3.

4-2-5. Replacing the VPR-53 Board

Removal

1. Remove the video board assembly.
(Refer to Section 4-2-1.)
2. Remove the DPR-125 board and DCP-22 board.
(Refer to Sections 4-2-3 and 4-2-4.)
3. Remove the four screws that secure the holder (R) and the two screws that secure the holder (L), and remove the holder (R) and holder (L).


Screw
(PSW2.6 × 6)
Screw
(PSW2.6 × 6)
Holder (L)
VPR-53 board
Holder (R)

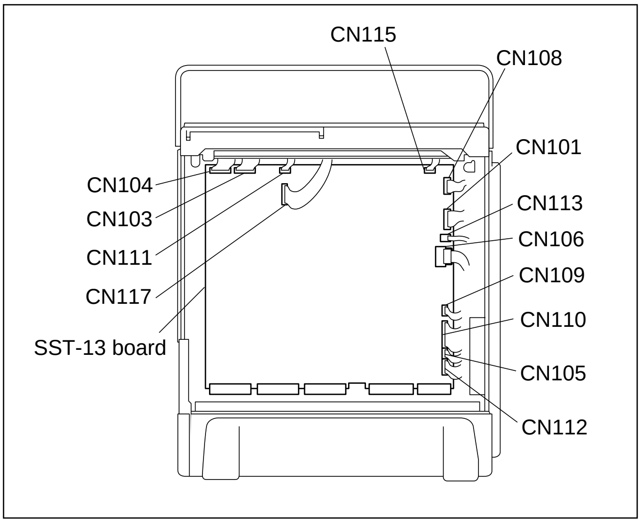
Installation

Attach a new VPR-53 board in reverse order of steps 1 through 3.

4-3. Replacing the SST-13 Board

Removal

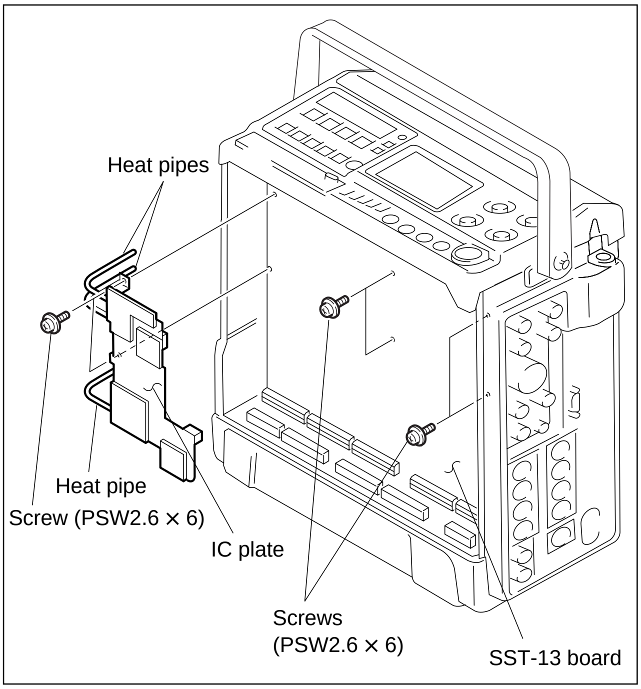
1. Remove the video board assembly.
   (Refer to Section 4-2-1.)
2. Disconnect the harnesses from the connectors CN101, CN103 to CN106, CN108 to CN113, CN115 and CN117.


CN115
CN108
CN101
CN104
CN113
CN103
CN106
CN111
CN109
CN117
CN110
SST-13 board
CN105
CN112

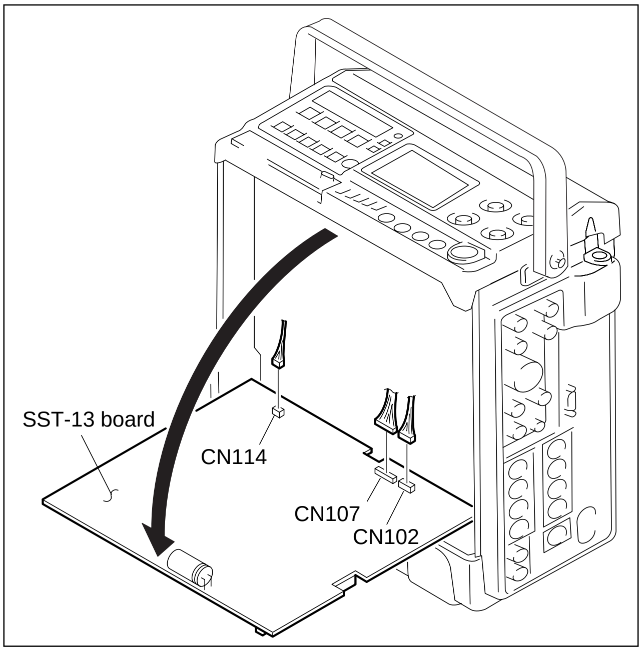
3. Remove the two screws to remove the IC plate.
4. Remove the four screws that secure the SST-13 board.

Note

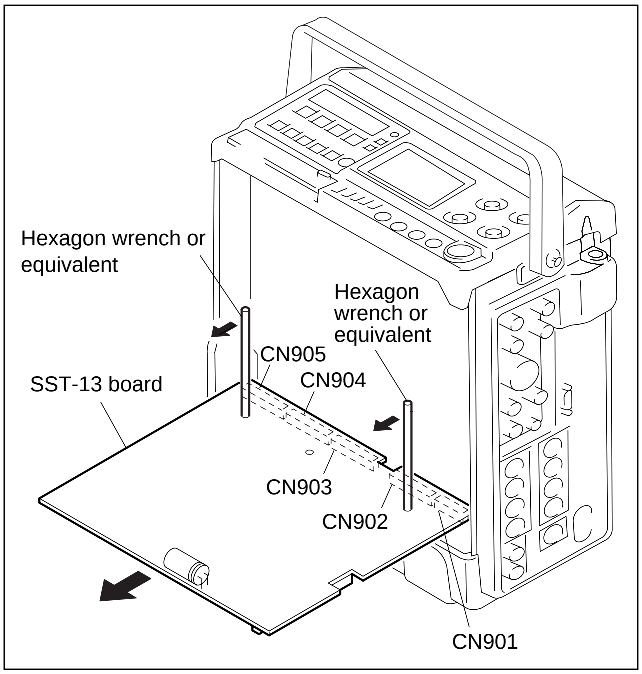
While holding the heat pipe, remove the IC plate carefully without bending the plate and pipes.


Heat pipes
Heat pipe
Screw (PSW2.6 × 6)
IC plate
Screws
(PSW2.6 × 6)
SST-13 board

5. Open the SST-13 board and disconnect the harnesses from the connectors CN102, CN107 and CN114 connected to the board .


SST-13 board
CN114
CN107
CN102

6. Put hexagon wrenches (across 1.5 mm) or equivalent into the two holes on the SST-13 board, pull them in the direction of the arrows to disconnect the connectors CN901 to CN905 connected to the MB-825 board.


Hexagon wrench or
equivalent
Hexagon
wrench or
equivalent
CN905
CN904
SST-13 board
CN903
CN902
CN901

Precaution for installation

Attach a new SST-13 board in reverse order of steps 1 through 6. Reattach the IC plate carefully without bending the plate and pipes.

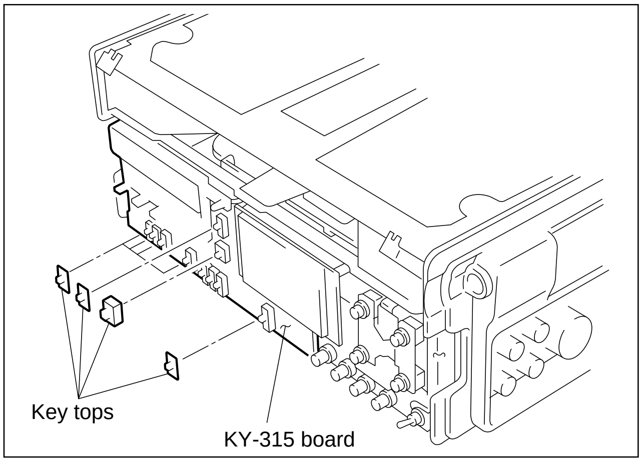
4-4. Replacing the KY-315 Board

Removal

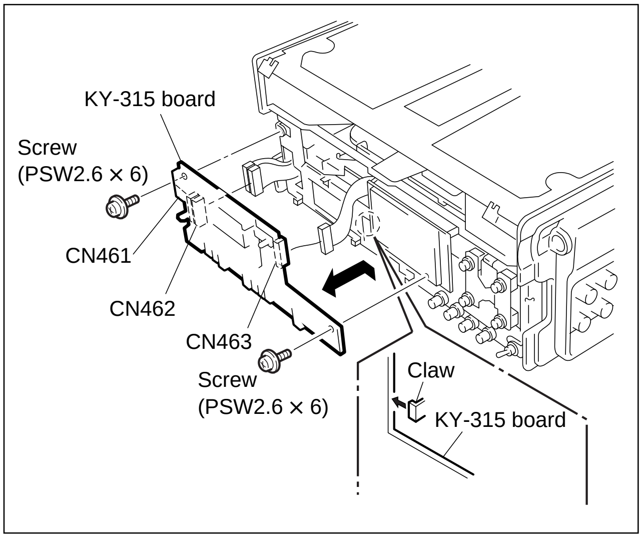
1. Remove the top panel, bottom plate, front cover and front panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove all key tops on the KY-315 board.

   Note

   Do not lose the key tops.


Key tops
KY-315 board

3. Remove the two screws from the KY-315 board.
4. Slide the board in the direction of the arrow so as to release the claws from the board.
5. While holding the board, disconnect the harnesses from the connectors CN461 to CN463.


KY-315 board
Screw
(PSW2.6 × 6)
CN461
CN462
CN463
Screw
(PSW2.6 × 6)
Claw
KY-315 board

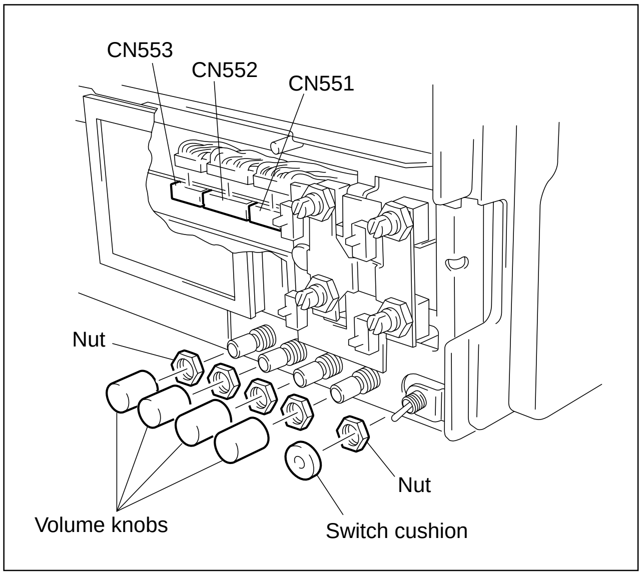
Installation

Attach a new KY-315 board in reverse order of steps 1 through 5.

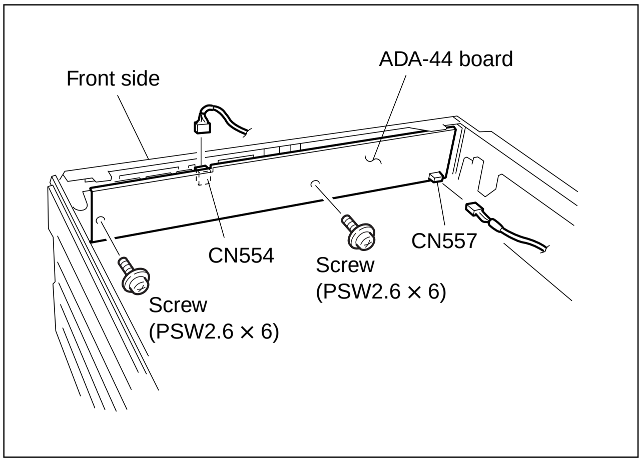
4-5. Replacing the ADA-44 Board

Removal

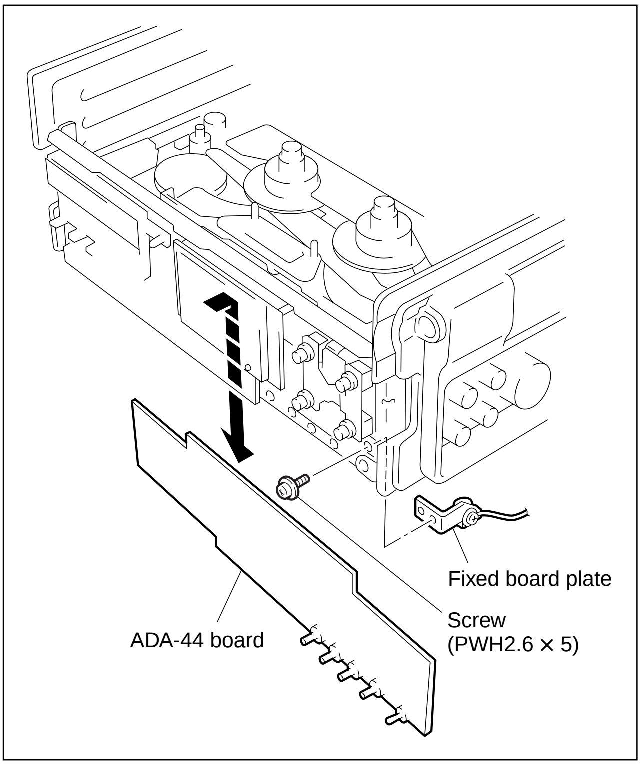
1. Remove the top panel, bottom plate, and front panel. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove the cassette compartment. (Refer to the Maintenance Manual Part 1, Section 1-6.)
3. Remove the four volume knobs and the switch cushion.
4. Remove the five nuts.
5. Disconnect the harnesses from the connectors CN551 to CN553.


CN553
CN552
CN551
Nut
Nut
Volume knobs
Switch cushion

6. Remove the video board assembly. (Refer to Section 4-2-1.)
7. Remove the two screws, and then disconnect the harnesses from the connectors CN554 and CN557 on the ADA-44 board.


Front side
ADA-44 board
CN554
Screw
(PSW2.6 × 6)
CN557
Screw
(PSW2.6 × 6)

8. Remove the screw to remove the fixed board plate.
9. While moving the board in the direction of the arrow, remove the board from the unit.


Fixed board plate
Screw
(PWH2.6 × 5)
ADA-44 board

Installation

Attach a new ADA-44 board in reverse order of steps 1 through 9.

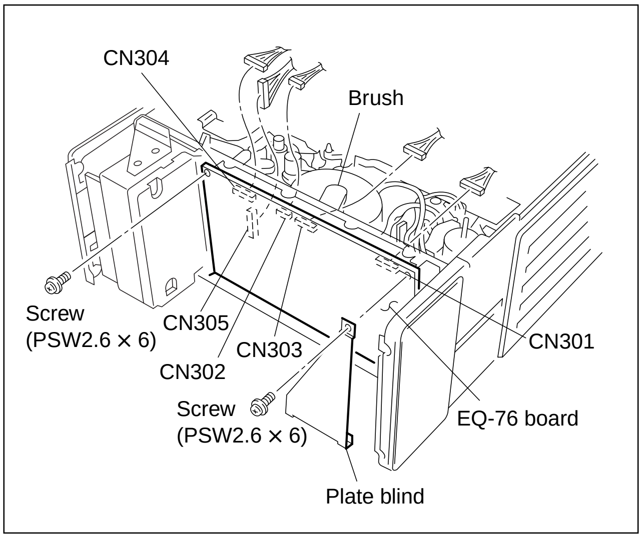
4-6. Replacing the EQ-76 Board

Removal

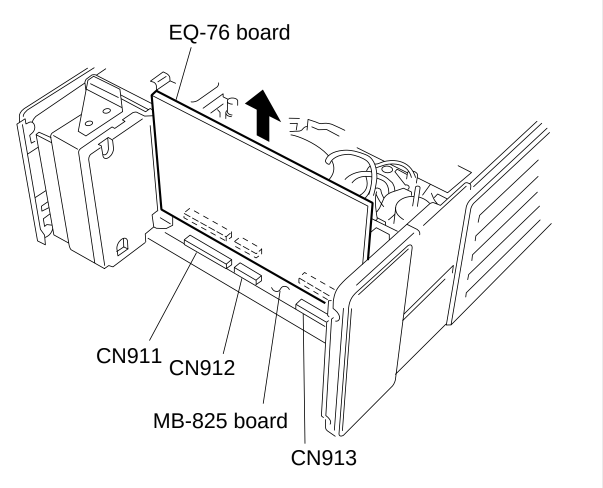
1. Remove the top panel, bottom plate and battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove the two screws and the plate blind, and then disconnect the harnesses from the connectors CN301 to CN305.

   Note

   Do not touch the brush.


CN304
Brush
Screw
(PSW2.6 × 6)
CN305
CN303
CN302
CN301
Screw
(PSW2.6 × 6)
EQ-76 board
Plate blind

3. Move the board in the direction of the arrow, and then disconnect it from the connectors CN911 to CN913 on the MB-825 board.


EQ-76 board
CN911
CN912
MB-825 board
CN913

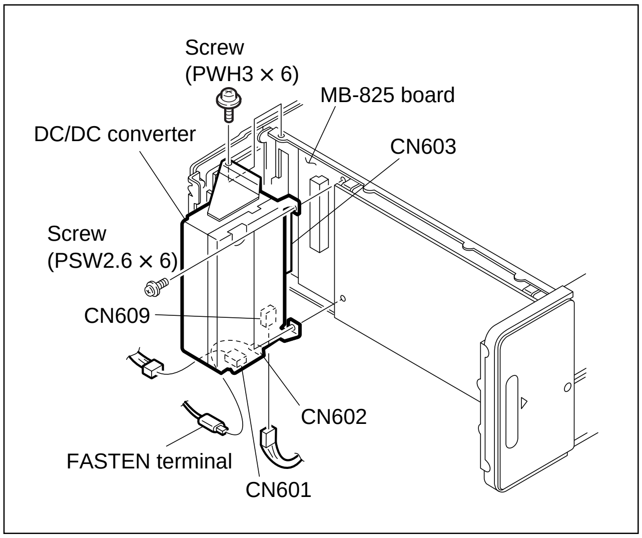
Precaution for Installation

Attach a new EQ-76 board in reverse order of steps 1 through 3. Before connecting the harness to the connector CN304, be sure to twist the harness five times.

4-7. Replacing the PSW-67, PSW-68, PSW-69 and PSW-70 Board Assembly

Removal

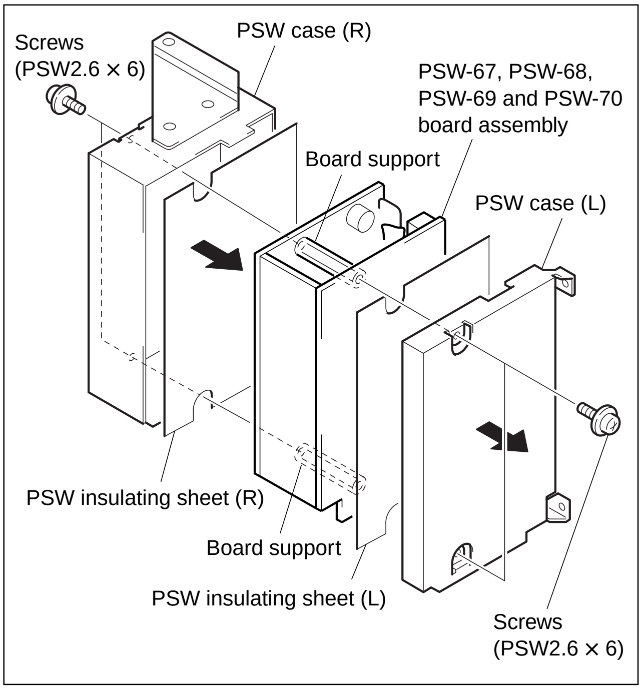
1. Remove the top panel, bottom plate and battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Disconnect the harnesses from the connectors CN601 and CN609, and while releasing the lock, disconnect the FASTEN terminal CN602.
3. Remove the three screws securing the DC/DC converter.
4. Disconnect the connector CN603 connected to the MB-825 board.


Screw
(PWH3 × 6)
MB-825 board
DC/DC converter
CN603
Screw
(PSW2.6 × 6)
CN609
CN602
FASTEN terminal
CN601

5. Remove the two screws and remove the PSW case (L) and PSW insulating sheet (L).
6. Remove the two screws and remove the PSW case (R) and PSW insulating sheet (R) from the board assembly.

Note

Be careful not to lose the board support after removing the screws because it is not fixed.


Screws
(PSW2.6 × 6)
PSW case (R)
PSW-67, PSW-68,
PSW-69 and PSW-70
board assembly
Board support
PSW case (L)
PSW insulating sheet (R)
Board support
PSW insulating sheet (L)
Screws
(PSW2.6 × 6)

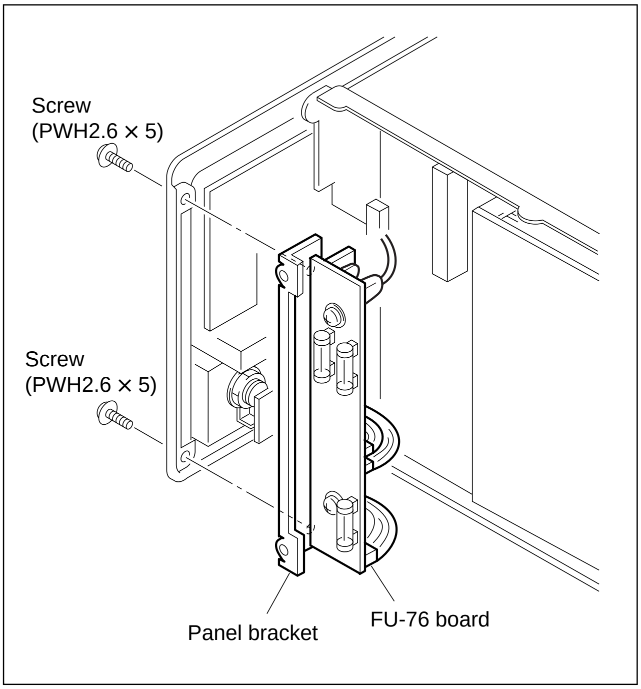
Installation

Attach the new PSW-67, PSW-68, PSW-69 and PSW-70 board assembly in reverse order of steps 1 through 6.

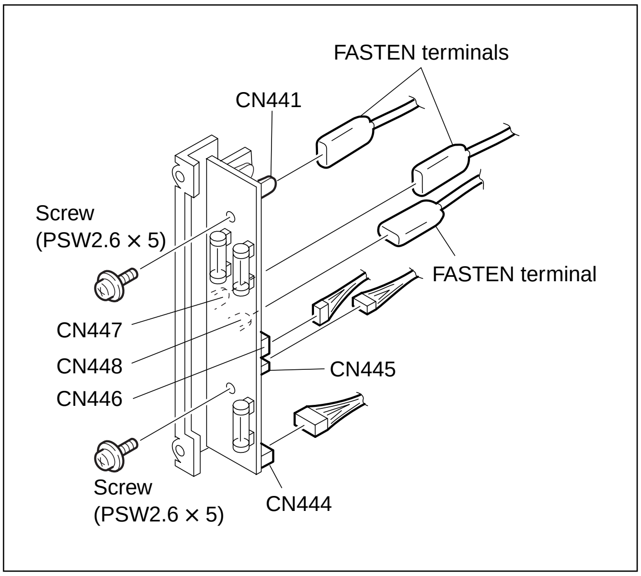
4-8. Replacing the FU-76 Board

Removal

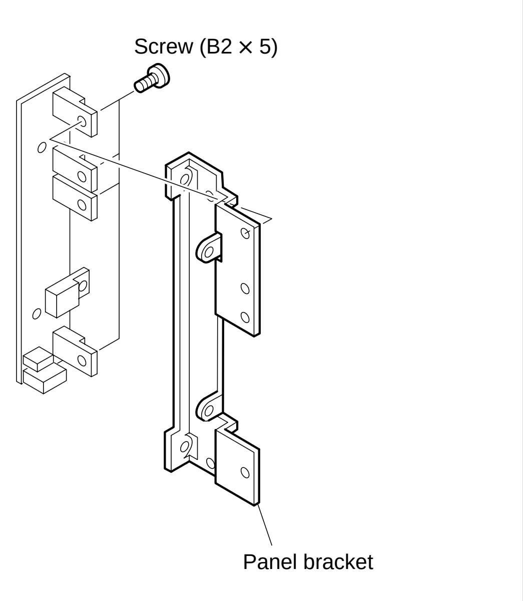
1. Remove the top panel, bottom plate and battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove the two screws on the panel bracket.


Screw
(PWH2.6 × 5)
Screw
(PWH2.6 × 5)
Panel bracket
FU-76 board

3. Disconnect the FASTEN terminals CN441, CN447 and CN448 while holding the housings.
4. Disconnect the harnesses from the connectors CN444 to CN446.
5. Remove the two screws.


FASTEN terminals
CN441
Screw
(PSW2.6 × 5)
FASTEN terminal
CN447
CN448
CN446
CN445
Screw
(PSW2.6 × 5)
CN444

6. Remove the four screws of the transistor to remove the panel bracket.


Screw (B2 × 5)
Panel bracket

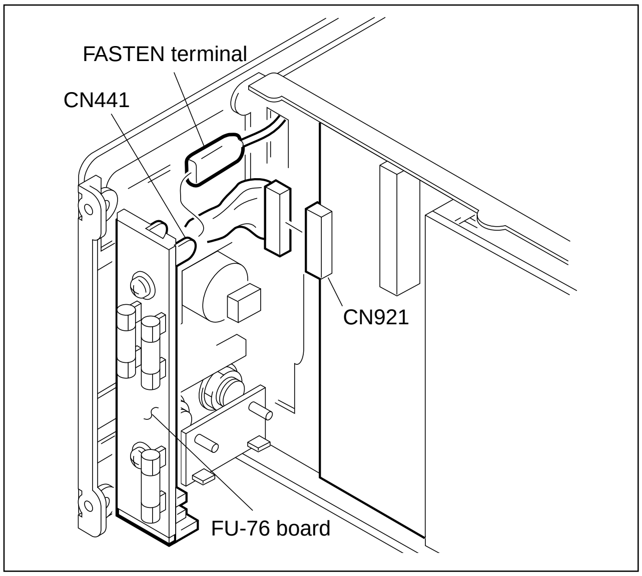
Precaution for Installation

When attaching the FU-76 board to the panel bracket, loosely tighten the six screws (the screws that were removed in steps 5 and 6), and then fasten them.

4-9. Replacing the MB-825 Board

Removal

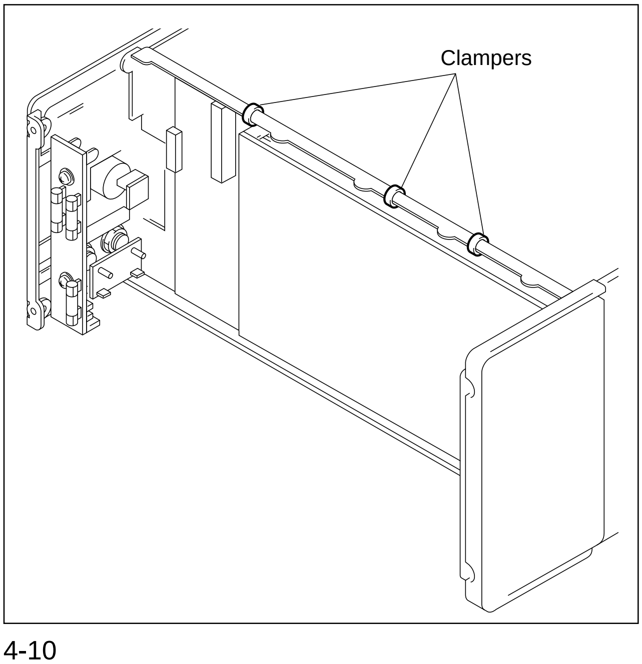
1. Remove the top panel, bottom plate and battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove the EQ-76 board. (Refer to Section 4-6.)
3. Remove the DC/DC converter. (Refer to Section 4-7.)
4. Disconnect the harness from the connector CN921.
5. Disconnect the FASTEN terminal CN441 on the FU-76 board while holding the housing.


FASTEN terminal
CN441
CN921
FU-76 board

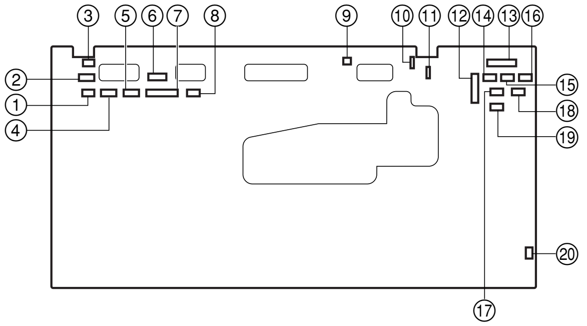
6. Remove the three clampers.

Note

When removing the clampers, be careful not to cut or damage the harness.

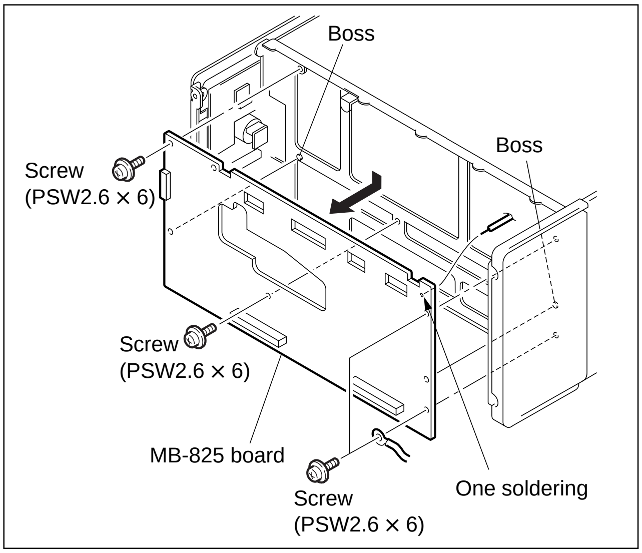


7. Disconnect the FASTEN terminals CN931 and CN932 while holding the housings.
8. Disconnect the harnesses from the connectors CN915, CN916, CN931, CN932, CN941 to CN944, CN946, CN947, CN949, CN951 to CN958 and CN960.


③
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑭
⑬
⑯
②
①
④
⑮
⑱
⑲
⑳
⑰

①	CN951	⑪	FASTEN terminal CN931
②	CN952	⑫	CN941
③	CN960	⑬	CN949
④	CN955	⑭	CN946
⑤	CN956	⑮	CN944
⑥	CN954	⑯	CN943
⑦	CN957	⑰	CN947
⑧	CN958	⑱	CN953
⑨	CN915	⑲	CN942
⑩	FASTEN terminal CN932	⑳	CN916

9. Remove the video board assembly and SST-13 board. (Refer to Sections 4-2-1 and 4-3.)
10. Remove the soldering, and then remove the four screws. Move the board in the direction of the arrow to remove it.


Boss
Boss
Screw
(PSW2.6 × 6)
Screw
(PSW2.6 × 6)
MB-825 board
Screw
(PSW2.6 × 6)
One soldering

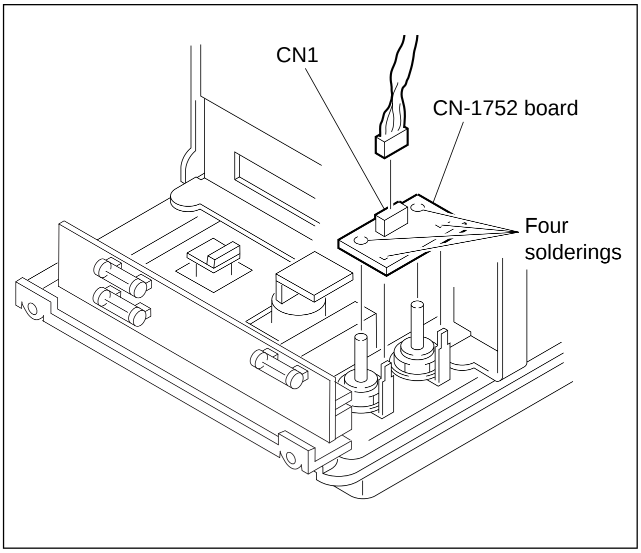
Precaution for Installation

Align the positions of the two bosses into the holes of a new MB-825 board, attach the board in reverse order of steps 1 through 10.

4-10. Replacing the CN-1752 Board

Removal

1. Remove the top panel, bottom plate and battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove DC/DC converter. (Refer to Section 4-7.)
3. Disconnect the harness from the connector CN1, and then remove the four solderings.



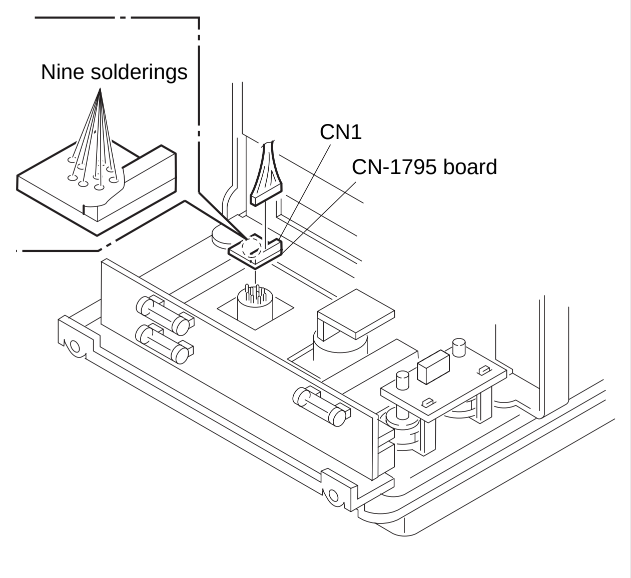
Installation

Attach a new CN-1752 board in reverse order of steps 1 through 3.

4-11. Replacing the CN-1795 Board

Removal

1. Remove the top panel, bottom plate and battery case. (Refer to the Maintenance Manual Part 1, Section “1-5. Removing and Reinstalling the Cabinets”.)
2. Remove DC/DC converter. (Refer to Section 4-7.)
3. Disconnect the harness from the connector CN1, and then remove the nine solderings.



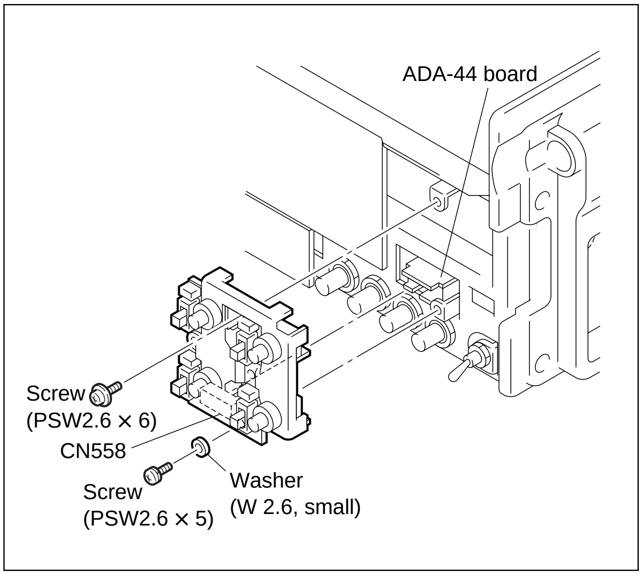
Installation

Attach a new CN-1795 board in reverse order of steps 1 through 3.

4-12. Replacing the VR-194 Board

Removal

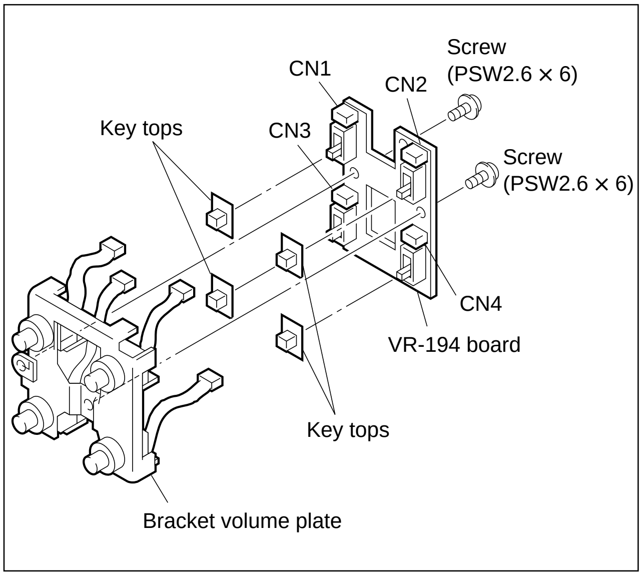
1. Remove the front cover and front panel.
   (Refer to the Maintenance Manual Part 1, Section "1-5. Removing and Reinstalling the Cabinets".)
2. Remove the two screws, and then disconnect the connector CN558 connected to the ADA-44 board.


ADA-44 board
Screw
(PSW2.6 × 6)
CN558
Screw
(PSW2.6 × 5)
Washer
(W 2.6, small)

3. Remove the two screws, and then disconnect the harnesses from the connectors CN1 to CN4 to remove the bracket volume plate from the VR-194 board.

   Note

   Do not lose the key tops.


CN1
CN2
Screw
(PSW2.6 × 6)
Key tops
CN3
Screw
(PSW2.6 × 6)
CN4
VR-194 board
Key tops
Bracket volume plate

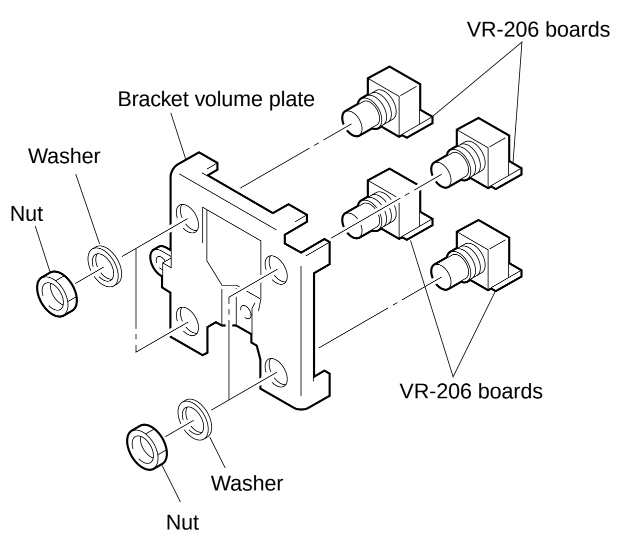
Precaution for Installation

Replace with a new board. After inserting the connector CN558 on the VR-194 board into the connector CN558 on the ADA-44 board completely, fasten the VR-194 board with the screws and attach the board in reverse order of steps 1 through 3.

4-13. Replacing the VR-206 Board

Removal

1. Remove the VR-194 board. (Refer to Section 4-12-1.)
2. Remove the four nuts and the four washers to remove the VR-206 board from the bracket volume plate.


VR-206 boards
Bracket volume plate
Washer
Nut
VR-206 boards
Washer
Nut

Installation

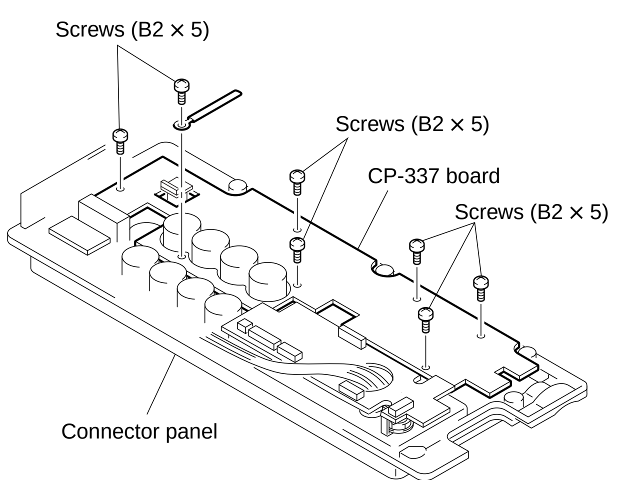
Attach a new VR-206 board in reverse order of steps 1 through 2.

4-14. Replacing the Boards on the Connector Panel

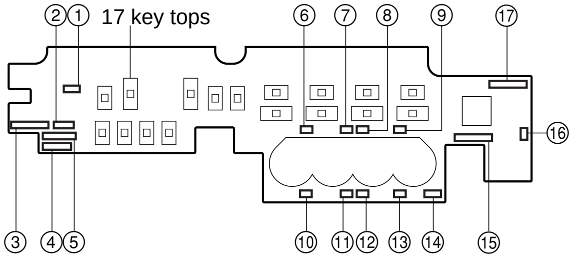
4-14-1. Replacing the CP-337 Board

Removal

1. Remove the connector panel. (Refer to the Maintenance Manual Part 1, Section 1-7.)
2. Remove the seven screws.


Screws (B2 × 5)
Screws (B2 × 5)
CP-337 board
Screws (B2 × 5)
Connector panel

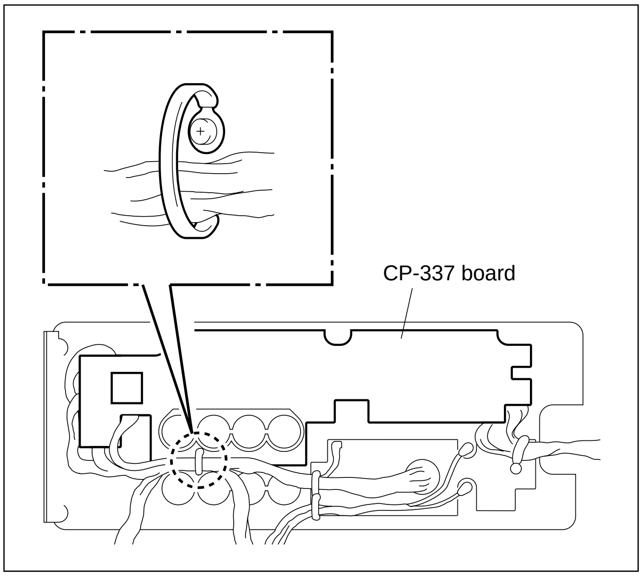
3. Disconnect the connectors CN401 to CN412, CN414 to CN417 and CN421 connected to the CP-337 board.


②①
17 key tops
⑥
⑦
⑧
⑨
⑰
⑯
③
④⑤
⑩
⑪⑫
⑬
⑭
⑮

①	CN421
②	CN407
③	CN409
④	CN411
⑤	CN410
⑥	CN403
⑦	CN404
⑧	CN405
⑨	CN406
⑩	CN414
⑪	CN415
⑫	CN416
⑬	CN417
⑭	CN402
⑮	CN401
⑯	CN408
⑰	CN412

Precaution for Installation

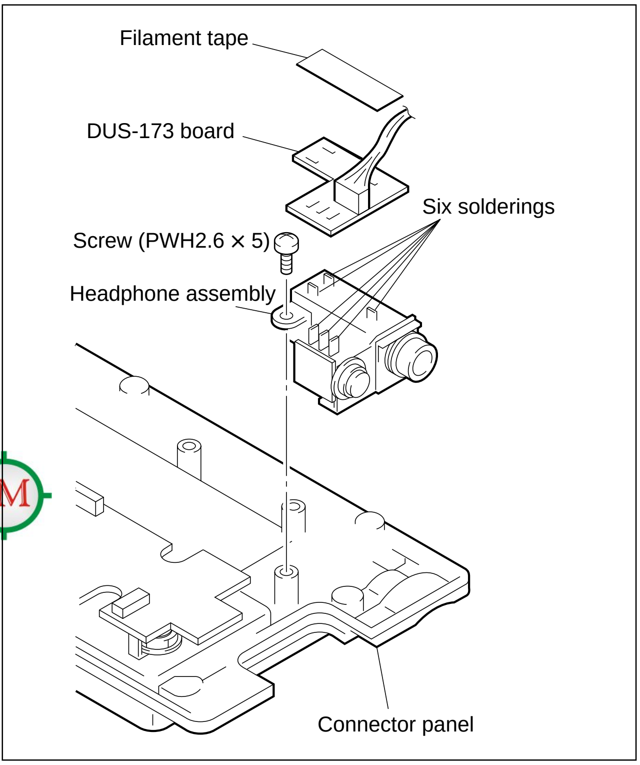
Replace with a new board, and tie the harnesses using the harness clamp as shown below after attaching the parts in reverse order of steps 1 through 3.


CP-337 board

4-14-2. Replacing the DUS-173 Board

Removal

1. Remove the connector panel. (Refer to the Maintenance Manual Part 1, Section 1-7.)
2. Remove the CP-337 board. (Refer to Section 4-14-1.)
3. Remove the screw to remove the headphone assembly.
4. Peel off the filament tape, and then remove the six solderings.


Filament tape
DUS-173 board
Six solderings
Screw (PWH2.6 × 5)
Headphone assembly
Connector panel

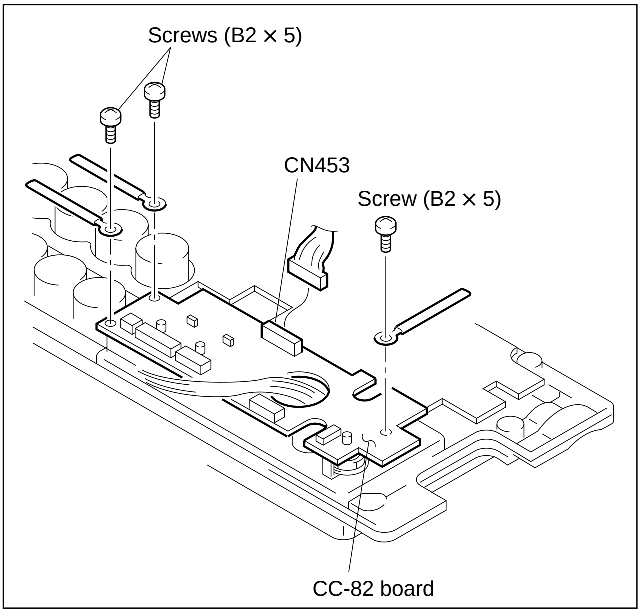
Installation

Attach a new DUS-173 board in reverse order of steps 1 through 4.

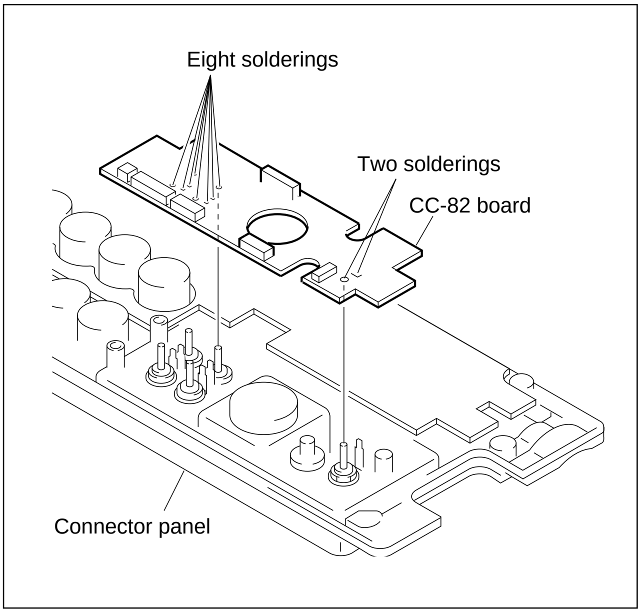
4-14-3. Replacing the CC-82 Board

Removal

1. Remove the connector panel. (Refer to the Maintenance Manual Part 1, Section 1-7.)
2. Remove the three screws, and then disconnect the harness from the connector CN453.

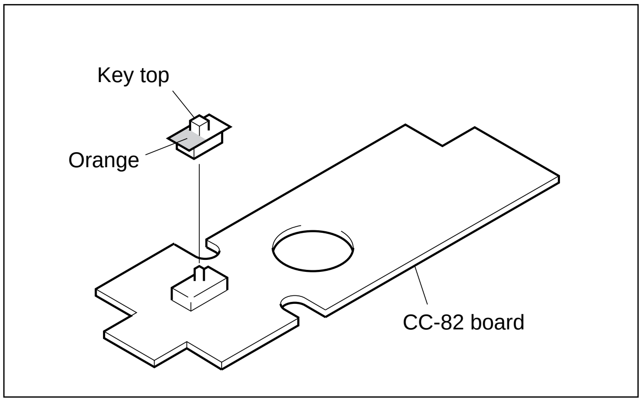

Screws (B2 × 5)
CN453
Screw (B2 × 5)
CC-82 board

3. Remove the two solderings and eight solderings to remove the CC-82 board.


Eight solderings
Two solderings
CC-82 board
Connector panel

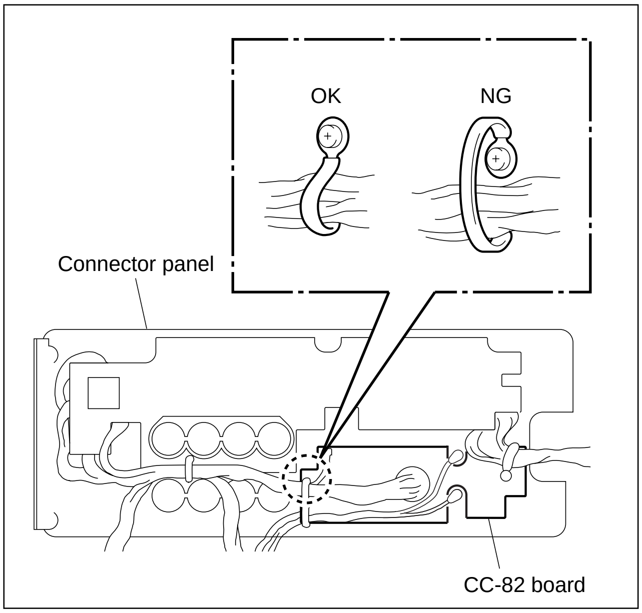
Note

Do not lose the key tops. When reattaching the key tops, carefully position the key tops.


Key top
Orange
CC-82 board

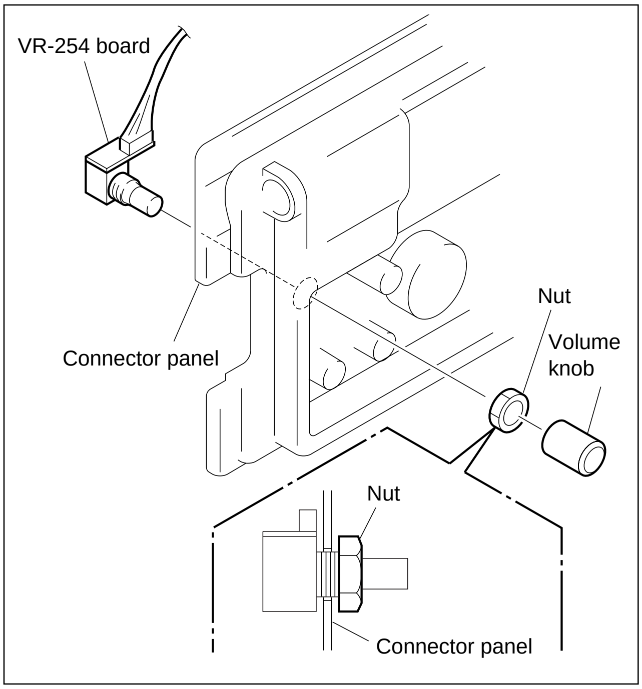
Precaution for Installation

Replace with a new board, and tie the harness with the harness clamp as shown below after attaching the board in reverse order of steps 1 through 3.


OK
NG
Connector panel
CC-82 board

4-14-4. Replacing the VR-254 Board

1. Remove the connector panel. (Refer to the Maintenance Manual Part 1, Section 1-7.)
2. Remove the CP-337 board and CC-82 board. (Refer to Sections 4-13-1 and 4-13-3.)
3. Remove the volume knob and nut to remove the VR-254 board.


VR-254 board
Connector panel
Nut
Volume knob
Nut
Connector panel

Precaution for Installation

Replace with a new VR-254 board. When fixing the board, attach the nut positioning as shown above.

Section 5
Electrical Alignment

5-1. General Information on Electrical Adjustment

5-1-1. Notes on Adjustment

Before adjustment, turn the power on and warm up the unit for about 10 munites.
Be sure to put the unit into EE mode according to the following procedures, if neccessary.
MODE switch/connector panel → PB/EE
Put the unit into STOP mode. (Insert a blank tape.)

5-1-2. Equipment/Fixtures

Equipment	Model
AC Adaptor or Battery	Sony AC-550 or equivalent
Oscilloscope	Tektronix 2465B or equivalent
HD Video Signal Generator	Tektronix TSG-1125 or equivalent
Component Waveform Monitor	Tektronix WFM300A or equivalent
Digital Voltmeter	Advantest TR6845 or equivalent
Audio Level Meter	Hewlett Packard HP 3400A or equivalent
Audio Analyzer	Tektronix AA5001 or equivalent
Audio Oscillator	Tektronix SG-5010 or equivalent
Digital Test Signal Generator	Tektronix TG15A6
Audio Noise Meter	READER LMV-189AR or equivalent
Audio Distortion Meter	Tektronix AA5010 or equivalent
Regulated DC Power Supply	
Monitor	Sony BVM-1410 or equivalent
Alignment Tape HR5-1A	Part No. : 8-960-076-01
Alignment Tape HR2-1A	Part No. : 8-960-076-11
Blank Tape ∗1	HDCAM Cassette Tape
Extension Harness	Part No. : J-6421-430-A (for VIDEO)∗2
	Part No. : J-6421-440-A (for AUDIO)∗3
Multi Connector Cable (CIBNC)	Part No. : J-6031-840-B

Note:
∗1 : "Blank Tape" indicates a cassette tape on which no video/audio signals are recorded.
∗2 : Connect between the following connectors when open the video boards assembly.
CN216 (A-2) /VPR-53 – (12 pins) – CN457 (A-2) /CC-82
CN214 (A-3) /VPR-53 – (8 pins) – CN456 (B-2) /CC-82
CN215 (A-4) /VPR-53 – (4 pins) – CN451 (B-2) /CC-82
CN1 (F-1) /DCP-22 – (3 pins) – CN454 (A-2) /CC-82
∗3 : Connect between the following connectors when open the video boards assembly.
CN206 (H-8) /VPR-53 – (10 pins) – CN555 (D-3) /ADA-44
CN207 (H-8) /VPR-53 – (12 pins) – CN556 (B-3) /ADA-44
CN208 (G-8) /VPR-53 – (6 pins) – CN559 (D-3) /ADA-44

5-1-3. Initial Settings for Switches

[Connector Panel]

CAMERA/VIDEO/HD SDI input selector switch → VIDEO
MODE switch → PB/EE
CH-3/4 OUT switch → LINE
CUE REC switch → ON
CONFI switch → ON
COLOR FRAME switch → OFF
EXT DC SELECT switch → AUTO
CAMERA/LINE audio input selector switch (CH-1 to CH-4) → LINE

[Front Panel]

UNI/VAR switch (CH-1 to CH-4) → UNI

5-1-4. Test Signals

Alignment Tape HR5-1A (Part No. 8-960-076-01)

Time min.: sec.	CTL	VIDEO	D-AUDIO	CUE	Time min.: sec.
00 : 00	CTL	Color Bars (100%)	1 kHz −20 dB FS	1 kHz 0 VU *1	00 : 00
				Blank	01 : 25
				1 kHz −20 VU *2	01 : 30
02 : 00			1 kHz 0 dB FS		
				Blank	02 : 25
				3 kHz −20 VU	02 : 30
				Blank	02 : 55
				7 kHz −20 VU *2	03 : 00
				Blank	03 : 25
				10 kHz −20 VU	03 : 30
				Blank	03 : 55
04 : 00			−∞ dB FS	12 kHz −20 VU *2	04 : 00
				Blank	04 : 25
				90 Hz −20 VU	04 : 30
				Blank	04 : 55
				Repeat	05 : 00
06 : 00			20 Hz −20 dB FS		
08 : 00			20 kHz −20 dB FS		
10 : 00		Ramp	Repeat	Repeat	10 : 00
20 : 00		Multi Burst	–	–	20 : 00
30 : 00					30 : 00

Alignment Tape HR2-1A (Part No. 8-960-076-11)

Time min.: sec.	CTL Track	CUE Track	Video/Audio Track	Application
00 : 00 ↑ (CTL Pulse ↓	CTL	1 kHz 0 VU	5.875 MHz (A ch only)	• Video tracking adjustment • CTL head position adjustment • CUE/TC head height adjustment • CUE/TC head position adjustment • CUE level adjustment
15:00		12 kHz 0 VU	A, C ch −5.875 MHz	• CUE/TC head slantness adjustment
20:00			A, C ch First half : 5.875 MHz Latter half : 23.5 MHz B, D ch First half : 23.5 MHz Latter half : 5.875 MHz	• CUE/TC head/tape contact force adjustment
25:00			23.5 MHz (All ch)	
30:00				

Note :
*1 : When this tape is reproduced in the audio reference level check or adjustment, the output level (0 dB) should be corrected according to the correction value as follows.
Example : Correction value = −0.5 dB
Output level = 0 dB −0.5 dB = −0.5 dB
*2 : When this tape is reproduced in the audio frequency responce check or adjustment, the output level should be corrected according to the correction value.

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5-1-5. EEPROM Data

Board name	Ref. No.	Data
SST-13	IC113 to 115 (SRAM)∗1	Setting data of the setup menu, adjustment data of the RF
	IC611, IC612 (SRAM)∗1	Hours meter data
	IC605 (EEPROM)	Adjustment data of the servo, adjustment data of the RF
VPR-53	IC416 (EEPROM)	Adjustment data of the VPR-53 board

∗1 : The data is backed up by the lithium battery on the SST-13 board.

5-1-6. Adjustment after Replacement of Boards and/or Blocks

After the board and/or block is replaced, excutes the following adjustment.

Block/Board name	Adjustment
Drum	5-3. Servo System Adjustment
	5-5-4. RF Parameter Initialize
	5-5-5. PLL Adjustment to 5-5-13. Alignment Tape Channel Condition Check (2)
CUE head	5-4-5. CUE/TC ERASE Current Adjustment to 5-4-8. CUE REC Level Adjustment
SST-3	5-2. Power/Control System Adjustment
	5-3. Servo System Adjustment
	5-4-5. CUE/TC ERASE Current Adjustment
	5-5-4. RF Parameter Initialize
	5-5-5. PLL Adjustment
	5-5-7. Equalizer Adjustment to 5-5-13. Alignment Tape Channel Condtion Check (2)
PSW-67/68/69/70	No adjustment is required.
FU-76	5-2-2. EXT DC/Battery Selection Adjustment
ADA-44	5-4-1. DA Level/Distortion Adjustment to 5-4-3. DC Offset Adjustment
CP-337	5-4-4. Alarm Tone Level Adjustment
EQ-76	5-4-6. CUE Channel PB Frequency Characteristics Adjustment to 5-4-8. CUE REC Level Adjustment
VPR-53∗1	5-6-22. Pedestal Level Adjustment to 5-6-23. Video Level Adjustment
DPR-125	No adjustment is required.
Other boards	No adjustment is required.

∗1 : When only IC416 (EEPROM) on the VPR-53 board is replaced, the special adjustment is necessary. For the adjustment procedure, contact your local Sony Sales Office/Service Center.

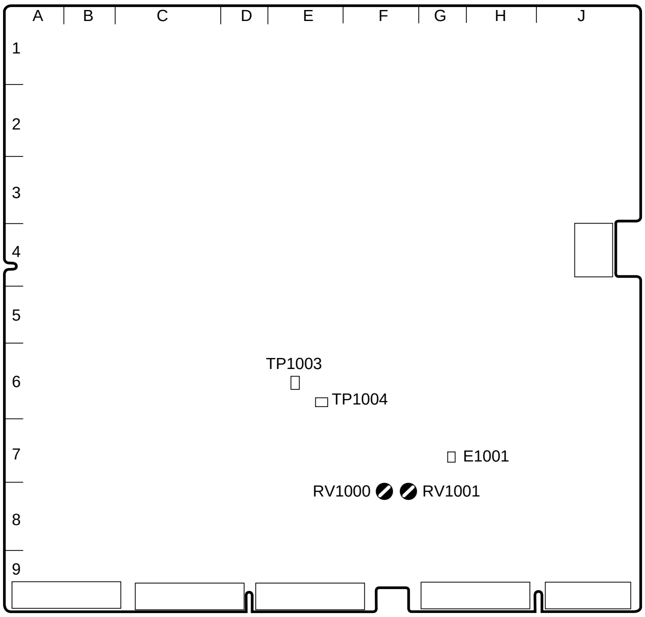
5-2. Power/Control System Adjustment

5-2-1. SST-13 Board Voltage Adjustment

Adjustment Procedure

1. +5 V Adjustment
   Equipment : Digital voltmeter
   Test point : TP1003 (E-6 : A) /SST-13
   GND : E1001 (G-7 : A) /SST-13
   Adjustment point : ⊘RV1000 (F-8 : A) /SST-13
   Specifications : $+4.90^{+0.00}_{-0.01}$ V dc

2. −8.0 V Adjustment
   Equipment : Digital voltmeter
   Test point : TP1004 (E-6 : A) /SST-13
   GND : E1001 (G-7 : A) /SST-13
   Adjustment point : ⊘RV1001 (F-8 : A) /SST-13
   Specifications : −8.0 ±0.1 V dc



SST-13 board (Side A)

5-2-2. EXT DC/Battery Selection Adjustment

Preparation

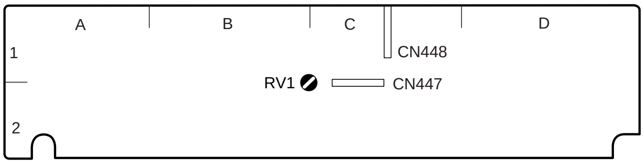
- Attach the charged battery (BP-L60A) to the unit.
- Supply +12 V dc to the EXT DC IN connector on the connector panel from the regulated DC power supply.
- EXT DC SELECT switch on the connector panel → AUTO

Adjustment Procedure

1. Decrease the output voltage of the regulated DC power supply.
   Equipment : Digital voltmeter
   Test point : CN448 (C-1 : A)/FU-76

2. When the DC voltage of the CN448 (C-1 : A)/FU-76 is switched to the voltage of the BP-L60A (reference value: about 14 V dc), check that the voltage of the CN-447 (C-2 : A)/FU-76 is within the specifications.
   Equipment : Digital voltmeter
   Test point : CN447 (C-2 : A)/FU-76
   Specifications : 11.2 ±0.1 V dc

   When the voltage is out of the specifications, finely adjust the voltage with the ⊘RV1 (C-2 : A)/FU-76. And then, perform the adjustment again from the step 1.



FU-76 board (Side A)

5-3. Servo System Adjustment

Preparation

- Eject a cassette tape.
- As for the DIAG menu operation, refer to the Maintenance Manual Part 1, Section 3-2.

5-3-1. EEPROM Data Initialization

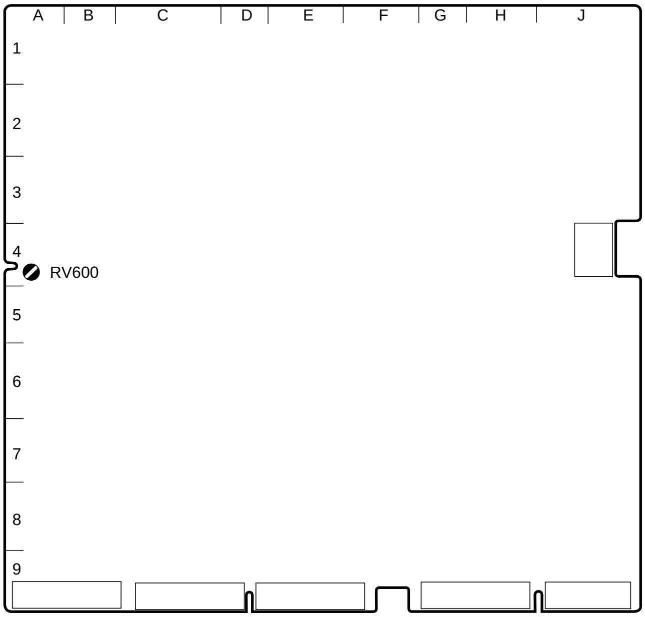
1. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <TTP> <ADJUST> <NVRAM>
   ITEM : NVRAM INITIAL

2. Press the SET button.
   The “INITIALIZING.....” message is displayed on the screen.
3. Check to see that the “INITIALIZED” message is displayed on the screen.

5-3-2. Click Position Correction of Tracking Volume

1. ⊘RV600 (A-4 : A) /SST-13 → Mechanical center
   (Tracking control volume) (Click position)
2. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <TTP> <ADJUST> <ADJUST>
   ITEM : TRACON CENTER

3. Press the SET button.
   (Executed the automatic adjustment.)
   The “ADJUSTING.....” message is displayed on the screen.
4. Check to see that the “ADJUST COMPLETE” message is displayed on the screen.



SST-13 board (Side A)

5-3-3. Capstan FG Duty Adjustment

1. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <TTP> <ADJUST> <ADJUST>
   ITEM : CAP FG DUTY

2. Press the SET button.
   (Executed the automatic adjustment.)
   The “ADJUSTING.....” message is displayed on the screen.
3. Check to see that the “ADJUST COMPLETE” message is displayed on the screen.

   If the “ADJUST INCOMPLETE” message is displayed, check the circuit (SST-13 board) relevant to capstan motor.

5-3-4. Capstan Free Speed Adjustment

1. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <TTP> <ADJUST> <ADJUST>
   ITEM : CAP SPEED

2. Insert an alignment tape (HR2-1A) into the unit to initiate the adjustment automatically.
   The “ADJUSTING.....” message is displayed on the screen.

   Note

   Be sure to use an alignment tape (HR2-1A).
   Even though the message “ADJUST COMPLETE” is displayed after the adjustment using the other tape, actual adjustment is incompleted.

3. Check to see that the “ADJUST COMPLETE” message is displayed on the screen, and then the cassette tape is ejected automatically.

   If the “ADJUST INCOMPLETE” message is displayed, check the circuit (SST-13 board) relevant to capstan motor and the circuit (SST-13 board) relevant to the CTL head.

5-3-5. Drum PG Phase Adjustment

1. Turn off the power.
2. Set all the four bits of switches S1 and S2 on the UDR-20 board on the upper drum to the TEST (ON).
3. S601-1 (C-1 : A) /EQ-76 → ON
4. Turn on the power.
5. ⊘RV600 (A-4 : A) /SST-13 → Mechanical center
   (Tracking control volume)   (Click position)
6. Connect an oscilloscope.
   CH-1: TP7 (E-4 : A) /MB-825
   CH-2: TP4 (F-4 : A) /MB-825

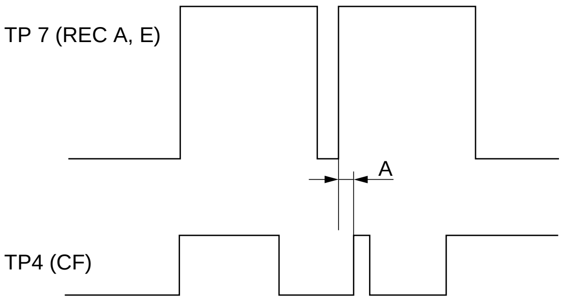
7. Insert an allignment tape (HR2-1A) and play back the signal of 5.7 MHz. (TIME; 00 : 00 : 00 - 14 : 59 : 29).

   Note

   Do not play back the portion of 15 minutes and later of the alignment tape.

8. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <TTP> <ADJUST> <ADJUST>
   ITEM : DRUM PG

9. Set the time A to 0.0 ±1.0 μs by pressing the UP/DOWN button.

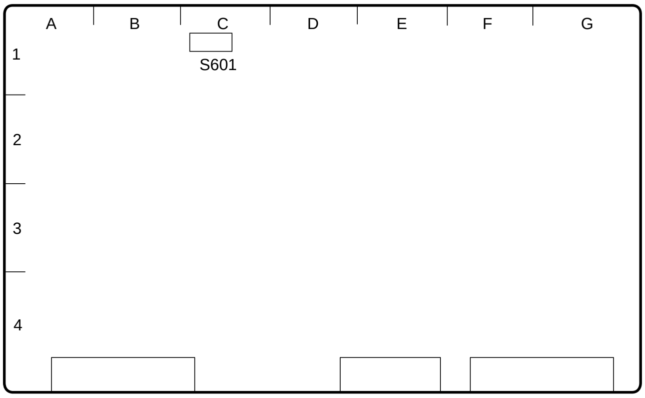


10. Press the SET button to save the data.
11. Eject the cassette tape.

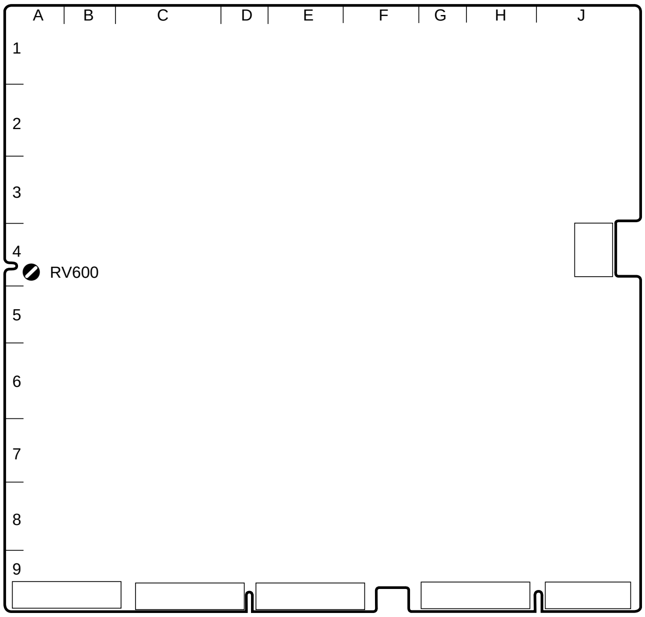
5-3-6. Saving the Servo Data

1. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <TTP> <ADJUST> <NVRAM>
   ITEM : SV DATA SAVE

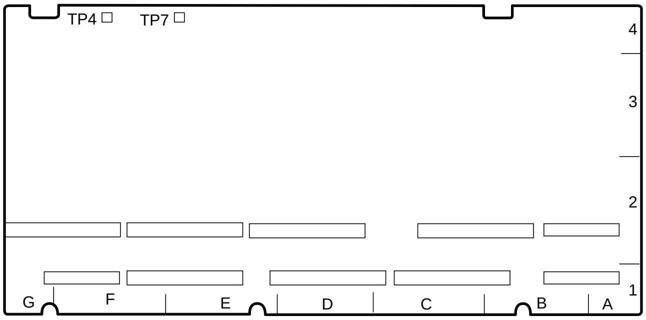
2. Press the SET button.
   The “SAVING.....” message is displayed on the screen.
3. Check to see that the “DATA SAVED” message is displayed on the screen.


A
B
C
D
E
F
G
1
2
3
4
S601

EQ-76 board (Side A)


A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
8
9
RV600

SST-13 board (Side A)


TP4
TP7
4
3
2
1
G
F
E
D
C
B
A

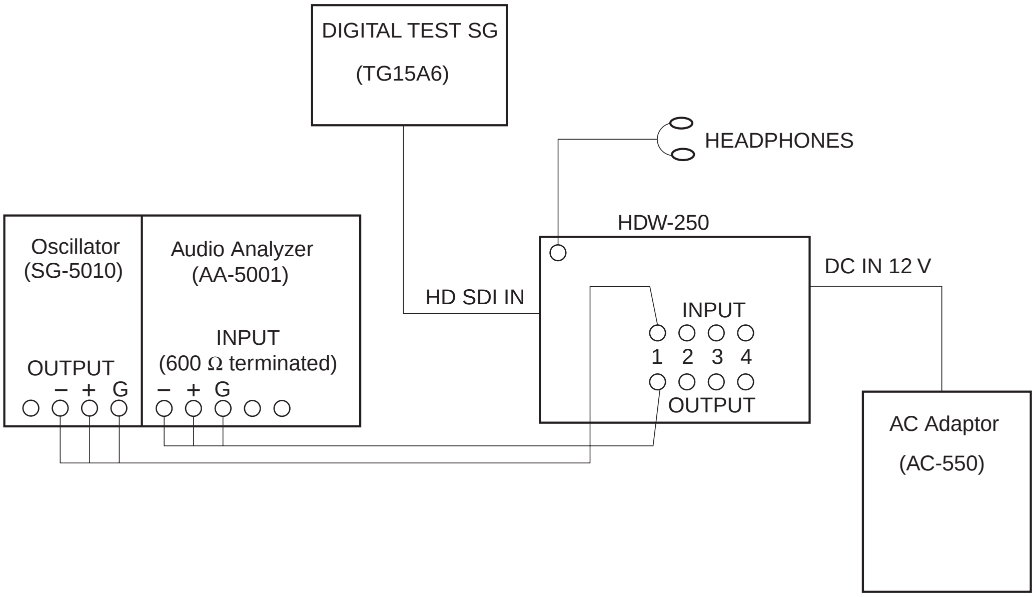
MB-825 board (Side A)

5-4. Audio System Adjustment

Preparation

- CUE REC switch on the connector panel → ON
- CAMERA/LINE audio input selector switches (CH-1 to CH-4) on the connector panel → LINE
- −60/−20/+4 dB switches (CH-1 to CH-4) on the connector panel → +4 dB
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- EXT DC SELECT switch on the connector panel → AUTO
- AUDIO REC LEVEL UNI/VAR switches (CH-1 to CH-4) on the front panel → UNI
- Set the oscillator (SG-5010) as follows.
  FUNCTION : SINE
  OUTPUT : R SOURCE 50 Ω/BAL/GND/ON
  FREQ : 1 kHz
  dBm (INTO 600 Ω) : +3.4 dB
- Set the audio analyzer (AA-5001) as follows.
  INPUT RANGE : AUTO RANGE
  FUNCTION : LEVEL/dBm
  REAR INTFC/INPUT : INPUT
  RESPONSE : RMS
  FILTER : 80 kHz LO PASS
- As for the setup menu operation, refer to the Maintenance Manual Part 1, Section 3-1.
- As for the DIAG menu operation, refer to the Maintenance Manual Part 1, Section 3-2.

Connection


DIGITAL TEST SG
(TG15A6)
HEADPHONES
HDW-250
DC IN 12 V
HD SDI IN
INPUT
1 2 3 4
OUTPUT
Oscillator
(SG-5010)
OUTPUT
− + G
Audio Analyzer
(AA-5001)
INPUT
(600 Ω terminated)
− + G
AC Adaptor
(AC-550)

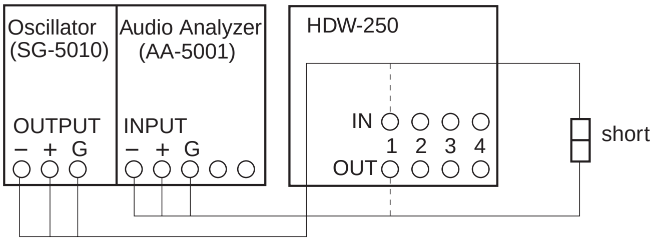
Reference Input Signal Setting-1

(Perform this setting when implementing the Section “5-4-2. INPUT Level Adjustment”.)

Procedure

1. Remove the 600 Ω terminator from the INPUT connector of the audio analyzer.
2. Short the input cable and output cable.
3. Equipment : Audio analyzer
   Test point : OUTPUT connector on the oscillator
   Adjustment point : Output level knob on the oscillator
   Specifications : +4.0 ±0.1 dBu
4. Reattach the 600 Ω terminator. (Terminate the INPUT connector of the audio analyzer.)
5. Remove the shorted connector, and then connect the equipment as shown in the figure below.
   - Oscillator OUTPUT
     → AUDIO IN CH-1/HDW-250
   - Audio Analyzer INPUT
     → AUDIO OUT CH-1/HDW-250

Connection


Oscillator
(SG-5010)
OUTPUT
− + G
Audio Analyzer
(AA-5001)
INPUT
− + G
HDW-250
IN
1 2 3 4
OUT
short

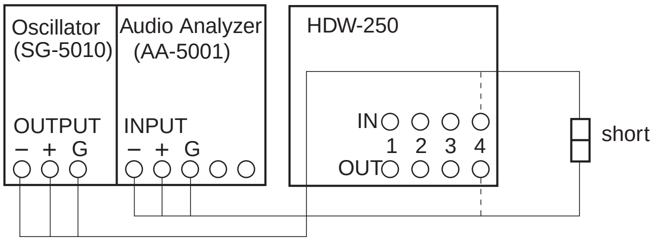
Reference Input Signal Setting-2

(Perform this setting when implementing the Section “5-4-8. CUE REC Level Adjustment”.)

Procedure

1. Remove the 600 Ω terminator from the INPUT connector of the audio analyzer.
2. Short the input cable and output cable.
3. Equipment : Audio analyzer
   Test point : OUTPUT connector on the oscillator
   Adjustment point : Output level knob on the oscillator
   Specifications : +16.0 ±0.1 dBu
4. Reattach the 600 Ω terminator. (Terminate the INPUT connector of the audio analyzer.)
5. Remove the shorted connector, and then connect the equipment as shown in the figure below.
   - Oscillator OUTPUT
     → AUDIO IN CH-4/HDW-250
   - Audio Analyzer INPUT
     → AUDIO OUT CH-4/HDW-250

Connection


Oscillator
(SG-5010)
OUTPUT
− + G
Audio Analyzer
(AA-5001)
INPUT
− + G
HDW-250
IN
1 2 3 4
OUT
short

Reference Input Signal Setting-3

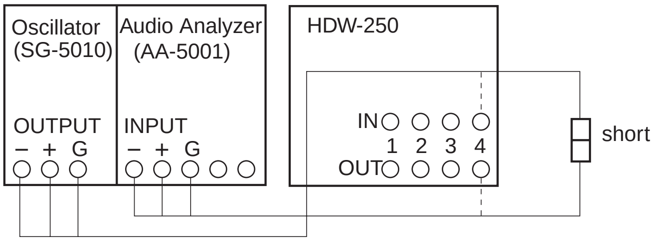
(Perform this setting when implementing the Section “5-4-8. CUE REC Level Adjustment”.)

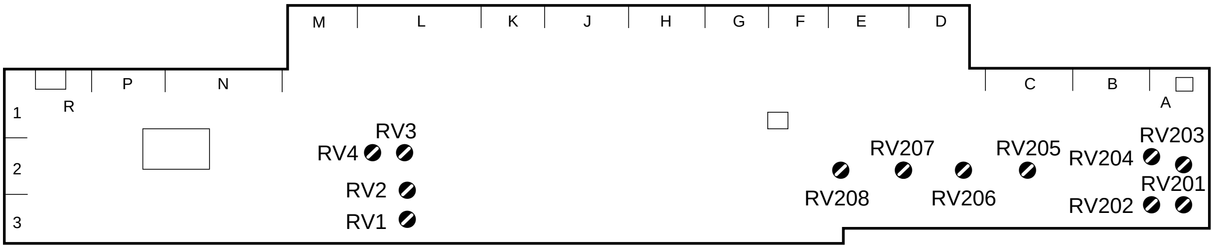
Procedure

1. Remove the 600 Ω terminator from the INPUT connector of the audio analyzer.
2. Short the input cable and output cable.
3. Equipment : Audio analyzer
   Test point : OUTPUT connector on the oscillator
   Adjustment point : Output level knob on the oscillator
   Specifications : −8.0 ±0.1 dBu

4. Reattach the 600 Ω terminator. (Terminate the INPUT connector of the audio analyzer.)
5. Remove the shorted connector, and then connect the equipment as shown in the figure below.
   - Oscillator OUTPUT
     → AUDIO IN CH-4/HDW-250
   - Audio Analyzer INPUT
     → AUDIO OUT CH-4/HDW-250

Connection


Oscillator
(SG-5010)
OUTPUT
− + G
Audio Analyzer
(AA-5001)
INPUT
− + G
HDW-250
IN
1 2 3 4
OUT
short


M
L
K
J
H
G
F
E
D
P
N
C
B
A
R
1
2
3
RV3
RV4
RV2
RV1
RV207
RV205
RV203
RV204
RV201
RV202
RV208
RV206

ADA-44 board (Side A)

5-4-1. DA Level/Distortion Adjustment

Preparation

- CH-3/4 OUT switch on the connector panel → LINE
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to STOP mode. (Insert a blank tape.)
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <AUDIO>
  ITEM : INPUT 1/2 → ANA
  ITEM : INPUT 3/4 → ANA
  ITEM : EMPHASIS → OFF
  PAGE : <SYSTEM>
  ITEM : A TEST SG → 1 k/2 (1 kHz, −20 dB FS)

Adjustment Procedure

1. CH-1 DA Level Adjustment
   Equipment : Audio level meter
   Test point : AUDIO OUT CH-1 connector
   Adjustment point : ⊘RV205 (C-2 : B) /ADA-44
   Specifications : +4.0 ±0.1 dBm (600 Ω)

2. On the setup menu, set PAGE and ITEM as follows :
   PAGE : <AUDIO>
   ITEM : INPUT 1/2 → DIG1
   ITEM : INPUT 3/4 → DIG1

3. CH-1 Distortion Adjustment
   Equipment : Audio distortion meter
   Test point : AUDIO OUT CH-1 connector
   Adjustment point : ⊘RV201 (A-3 : B) /ADA-44
   Specifications : Minimum (Check that the specifications are 0.03% or less)

4. Adjust the distortion for CH-2 through CH-4 in the same way.

	Test point	Adjustment point	
		DA level	Distortion
CH-2	AUDIO OUT CH-2	⊘RV206 (D-2 : B)	⊘RV202 (A-3 : B)
CH-3	AUDIO OUT CH-3	⊘RV207 (E-2 : B)	⊘RV203 (A-2 : B)
CH-4	AUDIO OUT CH-4	⊘RV208 (E-2 : B)	⊘RV204 (A-2 : B)

5. Setting after adjustment
   Reset the switches and menu to the original setting.

5-4-2. INPUT Level Adjustment

Preparation

- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Put the unit into STOP mode. (Insert a blank tape.)
- CH-3/4 OUT switch on the connector panel → LINE
- CAMERA/LINE switches (CH-1 to CH-4) / connector panel → LINE
- −60/−20/+4 dB switches (CH-1 to CH-4) / connector panel → +4 dB
- AUDIO REC LEVEL UNI/VAR switches (CH-1 to CH-4) /front panel → UNI
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <AUDIO>
  ITEM : INPUT 1/2 → ANA
  ITEM : INPUT 3/4 → ANA
  ITEM : EMPHASIS → OFF

Adjustment Procedure

1. CH-1 INPUT Level Adjustment
   (1) Perform the reference input signal setting-1. (Refer to the page 5-9.)
   (2) Input 1 kHz, +4 dBu signal to the AUDIO IN CH-1 connector.
   Equipment : Audio level meter
   Test point : AUDIO OUT CH-1 connector
   Adjustment point : ⊘RV1 (L-3 : B) /ADA-44
   Specifications : +4.0 ±0.1 dBm (600 Ω)

2. Adjust the distortion for CH-2 through CH-4 in the same way.

	Test point	Adjustment point
CH-2	AUDIO OUT CH-2	⊘RV2 (L-2 : B)
CH-3	AUDIO OUT CH-3	⊘RV3 (L-2 : B)
CH-4	AUDIO OUT CH-4	⊘RV4 (L-2 : B)

3. Setting after adjustment
   - Reset the switches and menu to the original setting.
   - AUDIO PB LEVEL knob (CH-1 to CH-4) / front panel → reference level position.

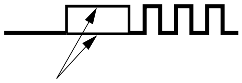
5-4-3. DC Offset Adjustment

Preparation

Disconnect the cable from the AUDIO IN connectors (CH-1 to CH-4) on the connector panel.

Adjustment Procedure

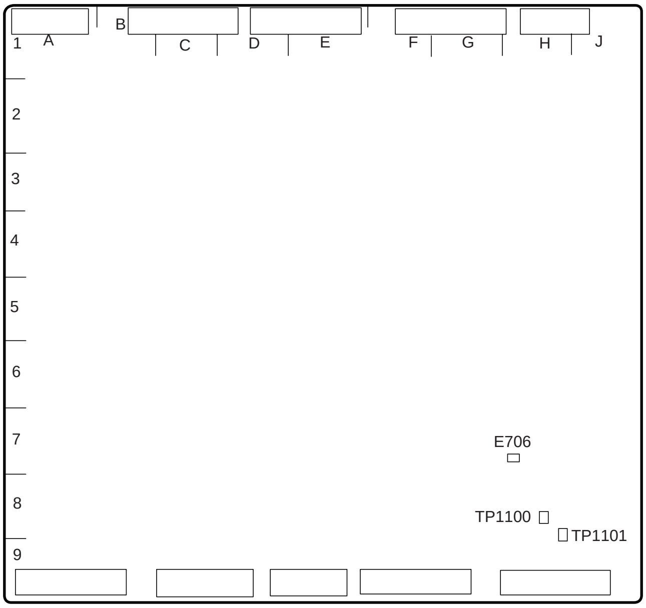
1. CH-1 DC Offset Adjustment
   Equipment : Oscilloscope (TRIG slope : +)
   Test point : TP1100 (H-8 : A) /VPR-53
   GND : E706 (H-7 : A) /VPR-53
   Adjustment point : ⊘RV5 (L-3 : B) /ADA-44



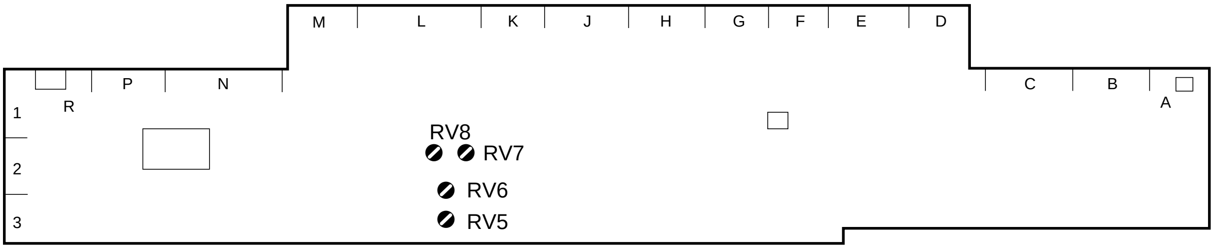
Equate the intensity of two lines.

2. Adjust the CH-2 through CH-4 in the same way.

	Test point	TRIG slope	Adjustment point
CH-2	TP1100 (H-8 : A)	–	⊘RV6 (L-2 : B)
CH-3	TP1101 (H-8 : A)	+	⊘RV7 (L-2 : B)
CH-4	TP1101 (H-8 : A)	–	⊘RV8 (L-2 : B)


A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
8
9
E706
TP1100
TP1101

VPR-53 board (Side A)


M
L
K
J
H
G
F
E
D
R
P
N
C
B
A
1
2
3
RV8
RV7
RV6
RV5

ADA-44 board (Side A)

http://getMANUAL.com

5-4-4. Alarm Tone Level Adjustment

Preparation

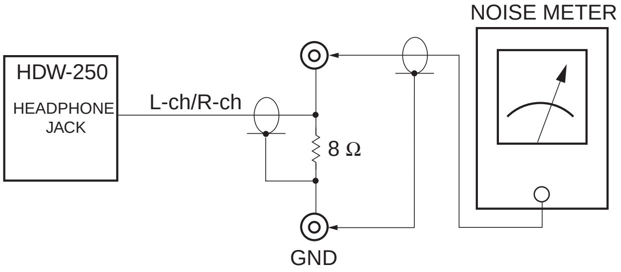
- Disconnect the cables from the AUDIO IN connectors (CH-1 to CH-4).
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <AUDIO>
  ITEM : INPUT 1/2 → ANA
  ITEM : INPUT 3/4 → ANA
  ITEM : EMPHASIS → OFF

- Mode switch on the connector panel → PB/EE
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : A TEST SG → 1 k/2 (1 kHz, −20 dB FS)

- AUDIO PB LEVEL knobs (CH-1 to CH-4) on the front panel → reference level position
  Equipment : AUDIO OUT connector
  Specifications : +4.0 ±0.1 dB (600 Ω)

- MONITOR SELECT CUE/DA switch on the connector panel → DA
- MONITOR SELECT 1/2, 3/4, and MIX switches on the connector panel → 1/2
- Terminate the output from the headphones jack (L-channel or R-channel) with 8 Ω terminator, and connect the jack to the audio noise meter.

Connection



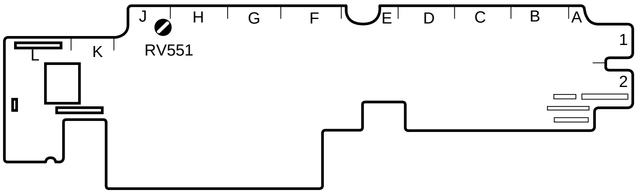
Adjustment Procedure

1. Set the unit to the EE mode.
   MODE switch on the connector panel → PB/EE
   Set the unit to the STOP mode. (Insert a blank tape.)
2. Setting the reference level
   Test point : HEADPHONES jack on the connector panel
   Adjustment point : PHONE LEVEL knob on the connector panel
   Specifications : −26.0 ±0.2 dBu

3. On the setup menu, set PAGE and ITEM as follows :
   PAGE : <AUDIO>
   ITEM : EMPHASIS → OFF

4. Insert a blank tape and fast forward the tape to the tape end.
5. Set the unit to the playback mode.
6. Alarm level adjustment
   Test point : HEADPHONES jack on the connector panel
   Adjustment point : ⊘RV551 (J-1 : B)/CP-337
   Specifications : −36.0 ±0.5 dBu

7. Eject the cassette tape.
8. Setting after adjustment
   Set the switches and menu back to the original setting.

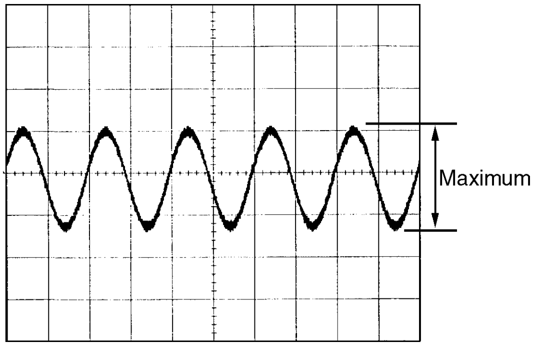


CP-337 board (Side B)

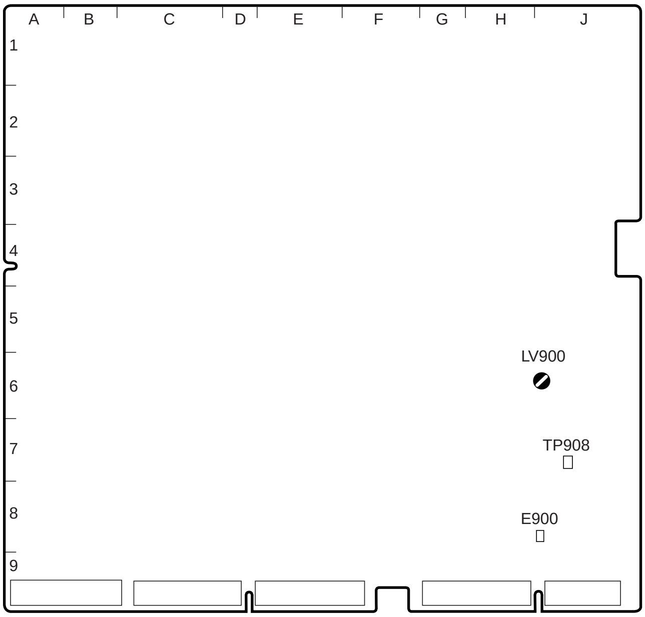
5-4-5. CUE/TC ERASE Current Adjustment

Adjustment Procedure

1. Insert a blank tape into the unit.
2. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <TTP> <PATH>
   ITEM : CUE E TEST → ON
3. Set the unit to REC mode.
4. Equipment : Oscilloscope
   Test point : TP908 (J-7 : A) /SST-13
   GND : E900 (H-8 : A) /SST-13
   Adjustment point : ⊘LV900 (H-6 : A) /SST-13
   Specifications : Maximum
   (Reference value : 410 ±40 mV p-p)



5. Eject the cassette tape.
6. Setting after adjustment
   Reset the menu to the original setting.



SST-13 board (Side A)

5-4-6. CUE Channel PB Frequency Characteristics Adjustment

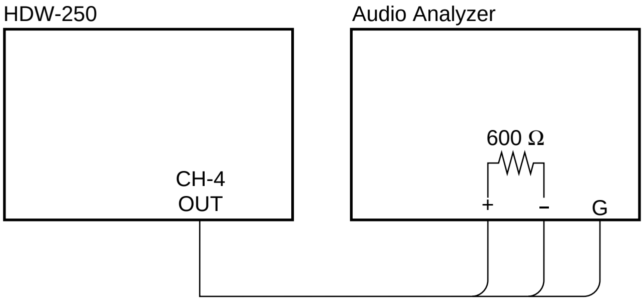
Note

The each audio level should be corrected according to the correction value. (Refer to Section 5-1-4.)

Preparation

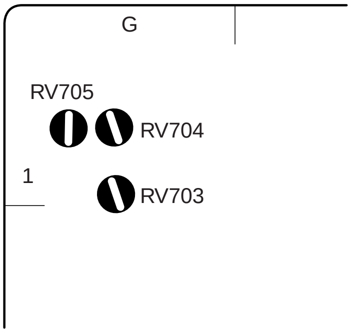
- CH-3/4 OUT switch on the connector panel → MON
- MONITOR SELECT switch on the connector panel → CUE

Connection



Adjustment Procedure

1. Preset the RV703 (G-1 : B), RV704 (G-1 : B) and RV705 (G-1 : B) /EQ-76 as follows.



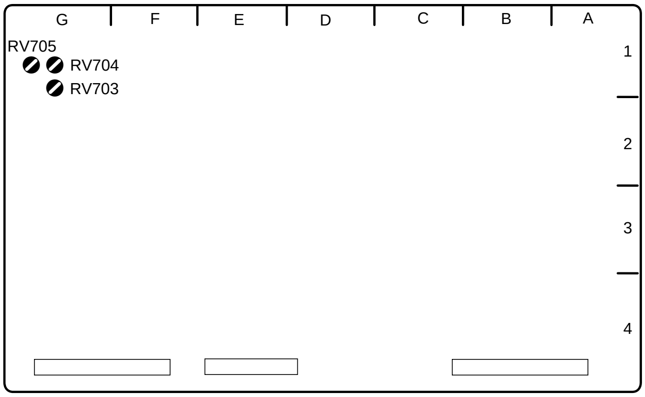
2. Insert an alignment tape (HR5-1A), and then play back 1 kHz, 0 VU signal (TIME ; 00 : 00 : 00 – 01 : 24 : 29).
   Equipment : Audio analyzer
   Test point : AUDIO OUT CH-4 connector on the connector panel
   Adjustment point : ⊘RV705 (G-1 : B) /EQ-76
   Specifications : 4.0 ±0.2 dBm (600 Ω)

3. Insert the alignment tape (HR5-1A), and then play back 1 kHz, –20 VU signal (TIME ; 01 : 30 : 00 – 02 : 24 : 29).
   Equipment : Audio analyzer
   Test point : AUDIO OUT CH-4 connector on the connector panel
   Take this signal level as “A” (dBm).

4. Insert the alignment tape (HR5-1A) , and then play back 10 kHz, –20 VU signal (TIME ; 03 : 30 : 00 – 03 : 54 : 29).
   Equipment : Audio analyzer
   Test point : AUDIO OUT CH-4 connector on the connector panel
   Adjustment point : ⊘RV704 (G-1 : B) /EQ-76
   Specifications : A ±0.2 dBm (600 Ω)

5. Insert the alignment tape (HR5-1A), and then play back 12 kHz, –20 VU signal (TIME ; 04 : 00 : 00 – 04 : 24 : 29).
   Equipment : Audio analyzer
   Test point : AUDIO OUT CH-4 connector on the connector panel
   Specifications : A ±0.7 dBm (600 Ω)

6. Perform the step 2 again.
7. Eject the cassette tape.
8. Setting after adjustment
   Reset switches to the original positions.



EQ-76 board (Side B)

5-4-7. CUE Bias Adjustment

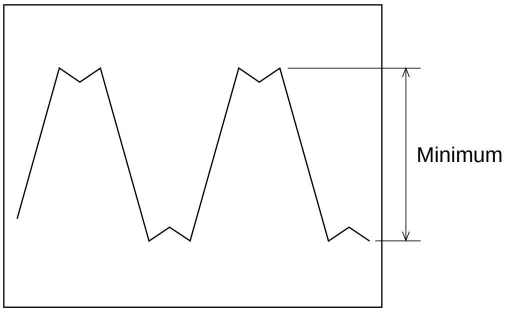
Preparation

- Disconnect the cable from the AUDIO IN connector.
- CUE REC switch on the connector panel → ON
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blnak tape.)

Adjustment Procedure

1. Insert a blank tape, and then set the unit to the REC mode.
2. Equipment : Audio noise meter
   Test point : TP705 (G-1 : B) /EQ-76
   GND : TP706 (G-1 : B) /EQ-76
   Adjustment point : ⊘CV701 (G-2 : B) /EQ-76
   Specifications : 15 ±1 mV rms

3. Equipment : Oscilloscope
   Test point : TP704 (G-2 : B) /EQ-76
   Adjustment point : ⊘LV701 (G-2 : B) /EQ-76
   Specifications : Minimum
   (Reference value : 1.8 Vp-p or less)



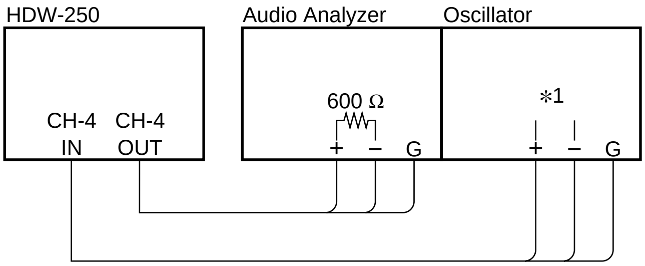
4. Repeat steps 2 and 3 until the specifications of the steps 2 and 3 are met.

5-4-8. CUE REC Level Adjustment

Preparation

- CUE REC switch on the connector panel → ON
- CH3/4 OUT switch on the connector panel → MON
- CUE/DA switch on the connector panel → CUE
- UNI/VAR switches (CH-1 to CH-4) on the front panel → UNI

Connection



*1. R SOURCE : 50 Ω

Adjustment Procedure

1. Perform the reference input signal setting-2. (Refer to page 5-9.) And then, input the following signal to the AUDIO IN CH-4 connector.
   Test point : AUDIO IN CH-4 connector on the connector panel
   Specifications : 1 kHz, +16.0 ±0.1 dBu

2. Insert a blank tape, and record the signal for about 10 seconds.
3. Play back the recorded portion, and then check that it is within the specifications.
   Equipment : Audio analyzer
   Test point : AUDIO OUT CH-4 connector
   Specifications : +4.0 ±0.2 dBm (600 Ω)

   If it is out of the specifications, finely adjust the level with ⊘RV701 (G-4 : B) /EQ-76 and repeat the adjustment from step 2.

4. Perform the reference input signal setting-3. (Refer to page 5-10.) And then, input the following signal to the AUDIO IN CH-4 connector.
   Test point : AUDIO IN CH-4 connector
   Specifications : 1 kHz, −8.0 ±0.1 dBu

5. Insert a blank tape, and record the signal for about 10 seconds.

6. Play back the recorded portion.
   Equipment : Audio analyzer
   Test point : AUDIO OUT CH-4 connector
   Take this signal level as "A" (dBm).
   (Reference value : −20 dBm)

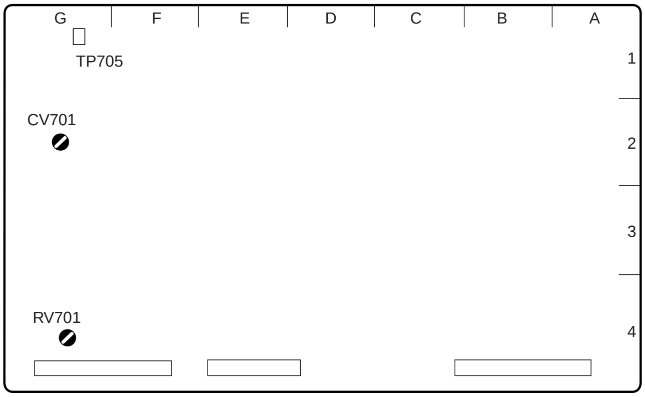
7. Input the following signal to the AUDIO IN CH-4 connector.
   Test point : AUDIO IN CH-4 connector
   Specifications : 10 kHz, −8.0 ±0.1 dBu

8. Insert the blank tape, and record the signal for about 10 seconds.
9. Play back the recorded portion, and then check that it is within the specifications.
   Equipment : Audio analyzer
   Test point : AUDIO OUT CH-4 connector
   Specifications : A ±2.0 dBm (600 Ω)

   When the measured value is out of the specification, adjust it as follows.

10. Equipment : Audio noise meter
    Test point : TP705 (G-1: B) /EQ-76
    Adjustment point : ⊘CV701 (G-2 : B) /EQ-76
    Specifications : 15 ±1 mV rms
    When the measured level of the step 9 was over the specifications, increase the level of the step 10 within the above specifications.
    When the measured level of the step 9 was below the specifications, lower the level of the step 10 within the above specifications.

11. Eject the cassette tape.
12. Setting after adjustment
    Reset switches to the original positions.



EQ-76 board (Side B)

5-5. RF System Adjustment

5-5-1. RF System Adjustment Precautions

Operation Precautions

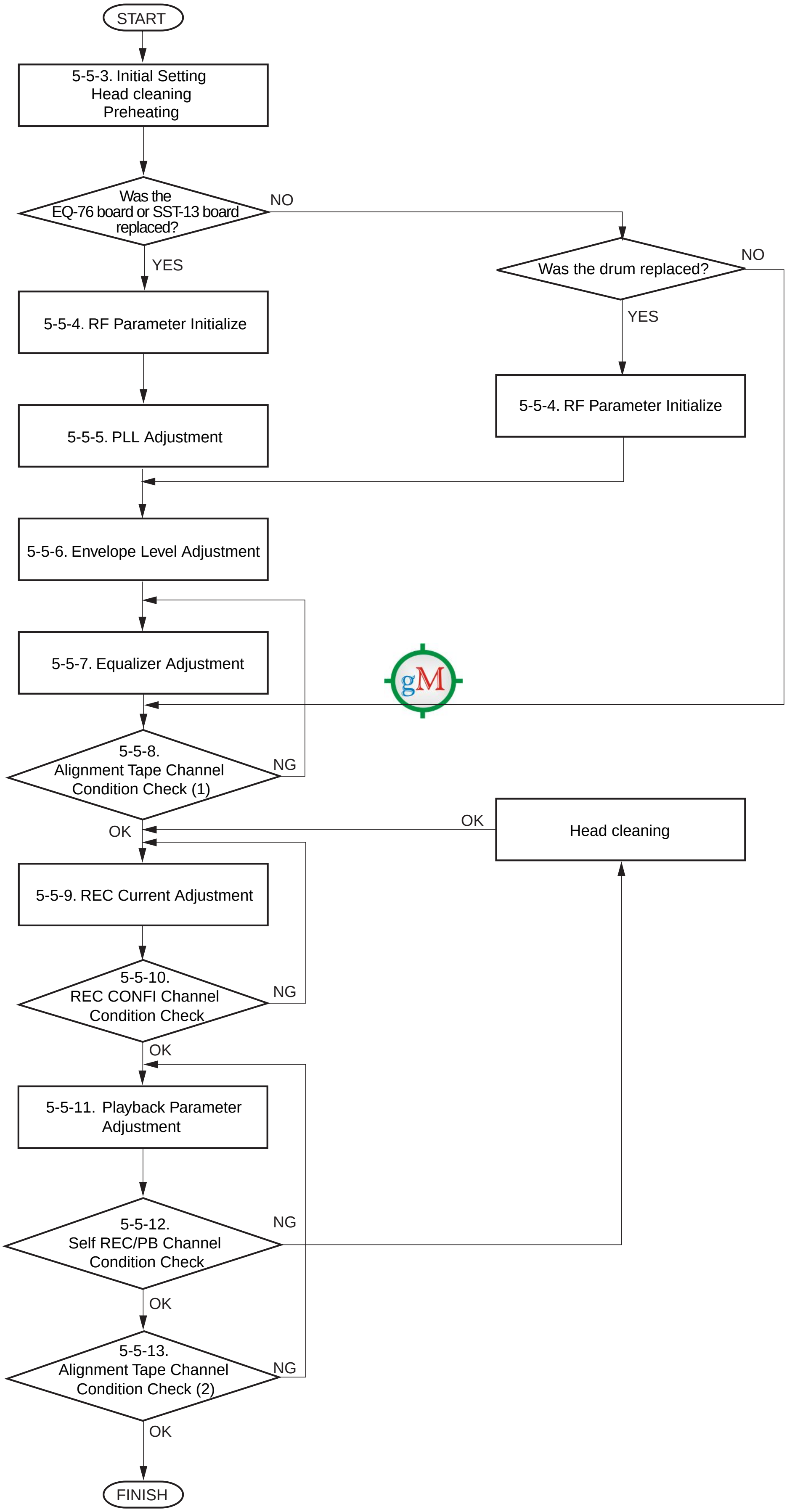
- When the RF parameter of the NVRAM is changed using the “rf adj” menu, the RF parameter is not saved unless the “W” (Write) command is executed on the “rf adj” menu. Therefore, if the power is turned off without executing the “W” command, all adjustment values are cleared and the parameter is returned to the value before the adjustment.
- If an error occurs such as servo unlock, tape jam, etc. during RF system adjustment, stop running the tape immediately.
  In this case, turn off the power without saving the adjustment data to return the RF parameter to its previous value, then re-adjust the RF system after recovering from an error.
- Error flags and envelope waveforms should be monitored during adjustment to help locate tape damage or fixed error, etc.

Tape Handling Precautions

- Tick the check box (☐) on the label of the alignment tape (HR5-1A) whenever the adjustment of the unit using HR5-1A is completed. Do not use the tape when all the 50 check boxes have been checked.
- Do not rewind a blank tape even after completing the adjustment of the unit.
  When 80% to 90% of a tape has been used, rewind the tape to the tape top, and tick a check box (☐).
  Do not use the tape when 10 check boxes have been checked.
- Do not use the last two minutes of the end of a blank tape.
  ✻ Do not use a blank tape when the alarm (TALLY) of the TAPE NEAR END flashes.

- Do not rewind a cleaning tape. Do not use the cleaning tape when the tape end is reached.
- Do not use the alignment tape, blank tape or cleaning tape for RF adjustment, for purposes other than RF adjustment.
- When a tape is damaged (jammed, scratched, etc.), replace the cassette tape immediately.
  Check the tape running system and servo system of the unit that causes the error, and repair the unit.
  Observe the envelope waveform of the RF signal to help locate the fault.

5-5-2. RF Adjustment Flow Chart

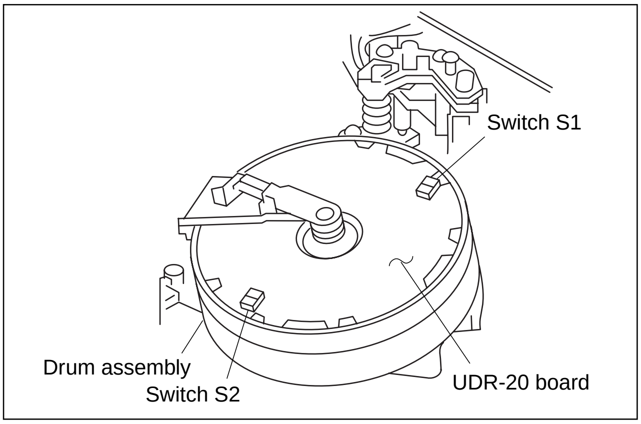

START
5-5-3. Initial Setting
Head cleaning
Preheating
Was the EQ-76 board or SST-13 board replaced?
NO
YES
Was the drum replaced?
NO
YES
5-5-4. RF Parameter Initialize
5-5-4. RF Parameter Initialize
5-5-5. PLL Adjustment
5-5-6. Envelope Level Adjustment
5-5-7. Equalizer Adjustment
5-5-8. Alignment Tape Channel Condition Check (1)
NG
OK
OK
Head cleaning
5-5-9. REC Current Adjustment
5-5-10. REC CONFI Channel Condition Check
NG
OK
5-5-11. Playback Parameter Adjustment
5-5-12. Self REC/PB Channel Condition Check
NG
OK
5-5-13. Alignment Tape Channel Condition Check (2)
NG
OK
FINISH

5-5-3. Initial Setting

Preparation

1. Check the following switch setting.

- S601 (C-1 : A)/EQ-76 → OFF (lower position)
- S1/UDR-20 (upper drum) → REC
- S2/UDR-20 (upper drum) → REC



2. Connect the CN100 (J-2 : A)/SST-13 to a personal computer with the RS-232C I/F tool (∗1 or ∗2).

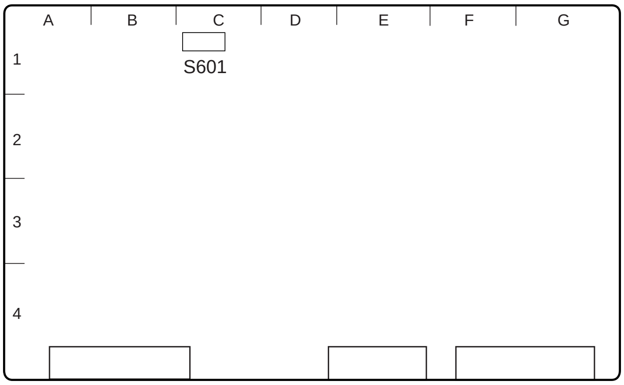
∗1 : For PC/AT personal computer (9-pin)
- RS-232C interface tool board : HJ-012/J-6510-120-A
- Tool cable (PC ↔ HJ-012) : HJ-PC9/J-6510-120-2
- Tool cable (HJ-012 ↔ SST-13) : CN-HJ/J-6510-110-3

∗2 : For NEC PC9800 series personal computer (25-pin)
- RS-232C interface tool board : HJ-011/J-6510-110-A
- Tool cable (PC ↔ HJ-011) : HJ-PC25/J-6510-110-4
- Tool cable (HJ-011 ↔ SST-13) : CN-HJ/J-6510-110-3

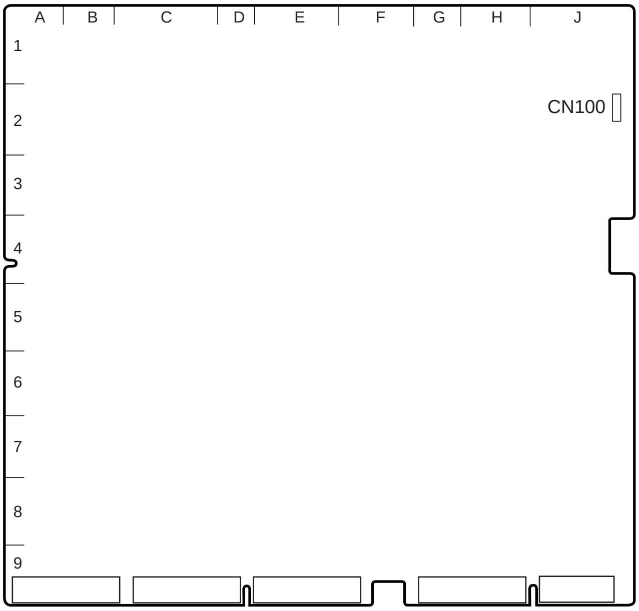
3. Start up the RS-232C terminal software on the personal computer (∗3).

∗3 : The RS-232C must have been installed in the personal computer.

4. Connect the power supply to the unit and turn on the power.
5. Clean the head with a cleaning tape (for five seconds).
6. Insert a blank tape and run the tape in the playback mode to warm up the unit (in order to preheat too) for 20 minutes.



EQ-76 board (Side A)



SST-13 board (Side A)

5-5-4. RF Parameter Initialize

Note

Perform this adjustment when either of the following boards is replaced.

EQ-76 board or SST-13 board

Initializing Procedure

1. Start up the RS-232C terminal software on a personal computer.
2. Check to see that “MON>” appears on the screen.
3. Type “rf adj” and press the ENTER key.
   The rf adj menu is displayed on the screen.
4. Type D and press the ENTER key to set the initial value of the RF parameter.
5. Check to see that the values of the RF parameter are the following values. (Check the initializing.)

```
MON>rf adj
        Ach    Bch    Cch    Dch    Ech    Fch    Gch    Hch
AMP     60/XX  60/XX  60/XX  60/XX  60/XX  60/XX  60/XX  60/XX
PHS     70     70     70     70     70     70     70     70
REC     35/XX  35/XX  35/XX  35/XX  35/XX  35/XX  35/XX  35/XX
Spd +1  90     90     90     90
Inc FF  4B     4B     4B     4B
Inc RW  4E     4E     4E     4E
Delay   6E/XX  6E/XX  6E/XX  6E/XX       (Raw data/Corrected data)

N:next P:prev W:save A:add S:sub D:default Q:quit
AMP-A :60/5B
```

6. Press the W key. After appearing “MON > rf adj”, press the ENTER key to save the data in the NVRAM.

Key Functions of Personal Computer

N : next (Moves to the next page.)
P : prev (Returns to the previous page.)
W : save (Writes to the Write NVRAM.)
A : add (Shifts to the value of the parameter (+).)
S : sub (Shifts to the value of the parameter (−).)
D : default (Inputs the default value.)
Q : quit (Quits.)

Parameter Indication

XX/YY
Parameter on the left side (XX) : set value
Parameter on the right side (YY) :
the actually written data after compensation

RF Adjustment Commands

Command	Contents
rf adj	Parameter adjustment of RF system
deck	Number of error counting of each head

5-5-5. PLL Adjustment

Note

Perform this adjustment when either of the following boards is replaced.

EQ-76 board or SST-13 board

Preparation

Disconnect the harnesses from the CN301 (A-1 : A) / EQ-76 and the CN303 (D-1 : A) /EQ-76.

Adjustment Procedure

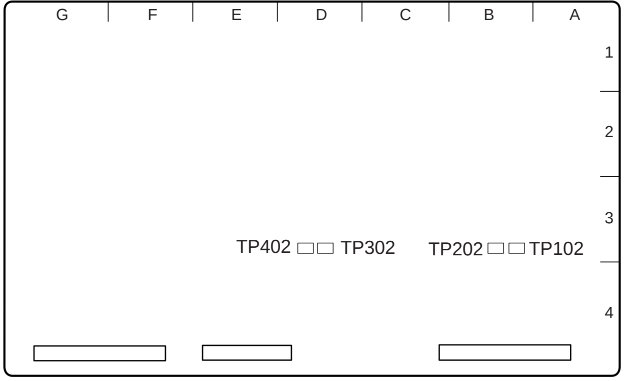
1. Insert a blank tape, and then set the unit to the playback mode.
2. A/E-channel adjustment
   Equipment : Frequency counter
   Test point : TP102 (B-3 : B)/EQ-76
   Adjustment point : rf adj menu
   Specifications : 47.0 ±0.2 MHz
3. Perform the following steps on the rf adj menu with the personal computer.
4. Select “Spd A-ch” using the N or P key.
5. Change the number (XX) of “Spd A-ch” using the A or S key to set the self-running frequency of the PLL to 47.0 ±0.2 MHz (∗1).

∗1 : As the exact frequency of 47.0 MHz cannot be obtain, adjust for the higher frequency.
Example) When the frequency error from 47.0 MHz is the same in both cases of 46.95 MHz and 47.05 MHz, adjust for the higher frequency of 47.05 MHz.

6. Adjust the B/F, C/G and D/H channels in the same way.

	Test point	Parameter
B/F ch	TP202 (B-3 :B)	Spd B-ch
C/G ch	TP302 (D-3 : B)	Spd C-ch
D/H ch	TP402 (D-3 : B)	Spd D-ch

7. Press the W key. After appearing “MON > rf adj”, press the ENTER key to save the data in the NVRAM.
8. Eject the cassette tape.
9. Reconnect the harnesses to the CN301 (A-1 : A) / EQ-76 and the CN303 (D-1 : A) /EQ-76.



EQ-76 board (Side B)

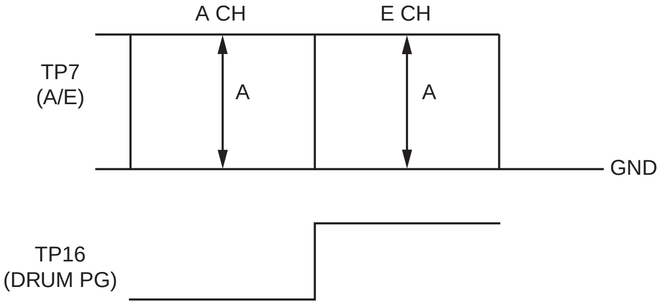
5-5-6. Envelope Level Adjustment

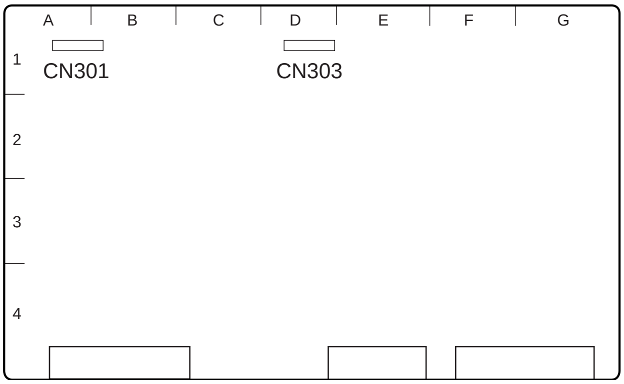
Adjustment Procedure

1. Insert an alignment tape (HR5-1A), and then set the unit to the playback mode.
2. Set the oscilloscope as follows :
   DC mode
   CH-1 : 1 V/DIV
   CH-2 : 10 V/DIV
   TIME : 2 msec/DIV

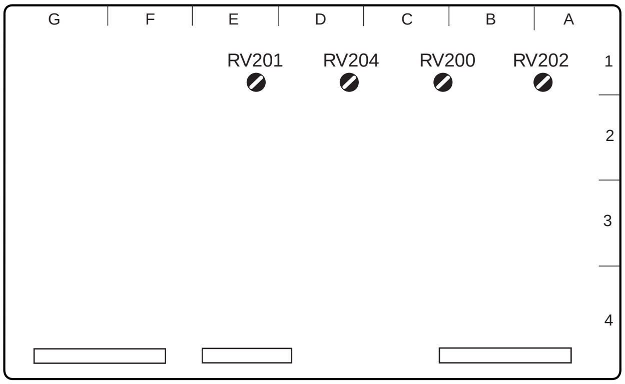
3. A/E-channel adjustment
   Test points CH-1 : TP7 (E-4 : A) /MB-825
   CH-2 : TP16 (C-4 : A) /MB-825 (TRIG)
   Adjustment point : ⊘RV202 (A-1 : B)/EQ-76
   Specifications : $A = 2.2^{+1}_{-0}$ V (*1)

*1 : Set the lower level of the envelope waveform to 2.5 V. The higher level should be 3.5 V or less.


A CH
E CH
TP7
(A/E)
A
A
GND
TP16
(DRUM PG)


A
B
C
D
E
F
G
1
2
3
4
CN301
CN303

EQ-76 board (Side A)


G
F
E
D
C
B
A
RV201
RV204
RV200
RV202
1
2
3
4

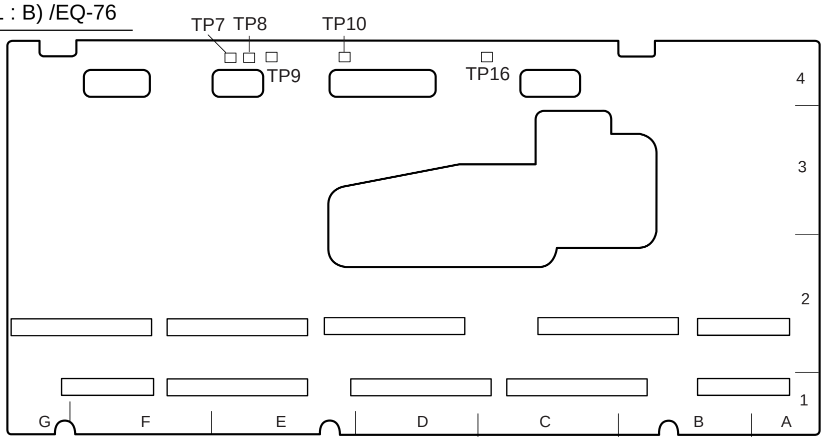
EQ-76 board (Side B)

4. Check to see that the envelope waveform is flat. When the waveform is not flat (The amplitude of entrance or exit decreases.), adjust the tape path again.
   Specifications :
   Appears the proper envelope waveform. (without excessive decrease at the shoulders of the envelope, missing waveform, etc.)

5. Adjust the B/F, C/G, and D/H channels in the same way.

	Test point (CH-1)	Adjustment point
B/F ch	TP8 (E-4 : A) /MB-825	⊘RV200 (C-1 : B) /EQ-76
C/G ch	TP9 (E-4 : A) /MB-825	⊘RV204 (D-1 : B) /EQ-76
D/H ch	TP10 (E-4 : A) /MB-825	⊘RV201 (E-1 : B) /EQ-76

6. Eject the cassette tape.


TP7
TP8
TP10
TP9
TP16
4
3
2
1
G
F
E
D
C
B
A

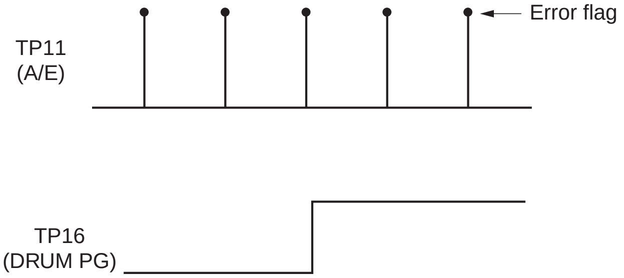
MB-825 board (Side A)

5-5-7. Equalizer Adjustment

Adjustment Procedure

1. Insert an alignment tape (HR5-1A), and then set the unit to the playback mode.
2. Set the oscilloscope as follows :
   DC mode
   CH-1 : 1 V/DIV
   CH-2 : 10 V/DIV
   TIME : 2 msec/DIV

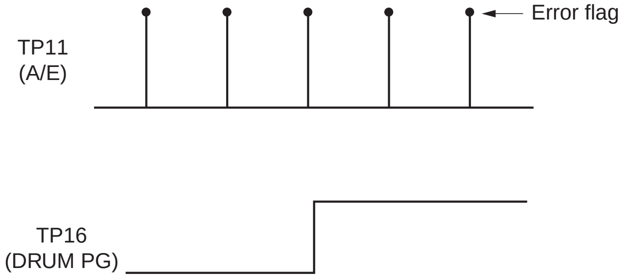
3. A/E-channel adjustment
   Test points CH-1 : TP11 (D-4 : A) /MB-825
   CH-2 : TP16 (C-4 : A) /MB-825 (TRIG)
   Adjustment point : ⊘RV103 (A-3 : B) /EQ-76
   Specifications : Minimize error flags



4. Adjust the B/F, C/G, and D/H channels in the same way.

	Test point (CH-1)	Adjustment point
B/F ch	TP12 (D-4 : A) /MB-825	⊘RV203 (B-3 : B) /EQ-76
C/G ch	TP13 (D-4 : A) /MB-825	⊘RV303 (C-3 : B) /EQ-76
D/H ch	TP14 (D-4 : A) /MB-825	⊘RV403 (D-3 : B) /EQ-76

5. Delay A-channel adjustment
   Equipment : Oscilloscope
   Test points CH-1 : TP11 (D-4 : A) /MB-825
   CH-2 : TP16 (C-4 : A) /MB-825 (TRIG)
   Adjustment point : rf adj menu
   Specifications : Minimize error flags
6. Perform the following steps on the rf adj menu with the personal computer.
7. Select “Delay A-ch” using the N or P key.
8. Change the number (XX) of “Delay A-ch” using the A or S key to minimize the error flag.



9. Adjust the B, C and D channels in the same way.

	Test point (CH-1)	Adjustment point
B ch	TP12 (D-4 : A) /MB-825	Delay B-ch
C ch	TP13 (D-4 : A) /MB-825	Dealy C-ch
D ch	TP14 (D-4 : A) /MB-825	Delay D-ch

10. AMP/PHASE A/E-channel adjustment
    Equipment : Oscilloscope
    Test points CH-1 : TP11 (D-4 : A) /MB-825
    CH-2 : TP16 (C-4 : A) /MB-825 (TRIG)
    Adjustment point : rf adj menu
    Specifications : Minimize error flags

11. Perform the following steps on the rf adj menu with the personal computer.
12. Select “AMP A-ch” using the N or P key.
13. Change the number (XX) of “AMP A-ch” using the A or S key to minimize the error flags.
14. Select “PHASE A-ch” using the N or P key.
15. Change the number (XX) of “PHASE A-ch” using the A or S key to minimize the error flags.
16. Select “AMP E-ch” using the N or P key.
17. Change the number (XX) of “AMP E-ch” using the A or S key to minimize the error flags.
18. Select “PHASE E-ch” using the N or P key.
19. Change the number (XX) of “PHASE E-ch” using the A or S key to minimize the error flags.

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20. Adjust the B/F, C/G and D/H channels in the same way.

	Test point (CH-1)	Parameter
B/F ch	TP12 (D-4 : A) /MB-825	AMP B-ch, PHASE B-ch AMP F-ch, PHASE F-ch
C/G ch	TP13 (D-4 : A) /MB-825	AMP C-ch, PHASE C-ch AMP G-ch, PHASE G-ch
D/H ch	TP14 (D-4 : A) /MB-825	AMP D-ch, PHASE D-ch AMP H-ch, PHASE H-ch

21. Press the W key. After appearing “MON > rf adj”, press the ENTER key to save the data in the NVRAM.
22. Eject the cassette tape.

Notes

Adjustment procedure of A channel
RV103 → Delay A-ch → AMP A-ch → PHASE A-ch

Adjustment procedure of E channel
(RV103) → (Delay A-ch) → AMP E-ch → PHASE E-ch

Adjustment procedure of B channel
RV203 → Delay B-ch → AMP B-ch → PHASE B-ch

Adjustment procedure of F channel
(RV203) → (Delay B-ch) → AMP F-ch → PHASE F-ch

Adjustment procedure of C channel
RV303 → Delay C-ch → AMP C-ch → PHASE C-ch

Adjustment procedure of G channel
(RV303) → (Delay C-ch) → AMP G-ch → PHASE G-ch

Adjustment procedure of D channel
RV403 → Delay D-ch → AMP D-ch → PHASE D-ch

Adjustment procedure of H channel
(RV403) → (Delay D-ch) → AMP H-ch → PHASE H-ch

5-5-8. Alignment Tape Channel Condition Check (1)

Adjustment Procedure

1. Insert an alignment tape (HR5-1A), and then set the unit to the playback mode.
2. Check to see that “MON >” is displayed on the screen of the personal computer.
   ∗1 : When the rf adj menu is displayed, press the Q key to exit the menu.
3. Type “deck” and press the ENTER key twice to display the value (XXXX) of each channel.

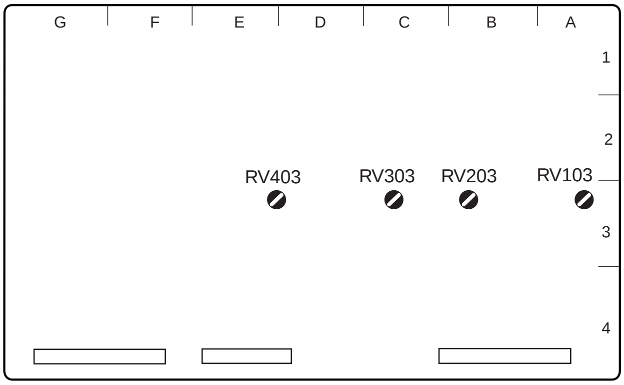
```
MON>deck
Ach    Bch    Cch    Dch    Ech    Fch    Gch    Hch
XXXX   XXXX   XXXX   XXXX   XXXX   XXXX   XXXX   XXXX
```

4. Check to see that the number (XXXX) of each channel is within the specifications.
   Specifications : 0015 or less

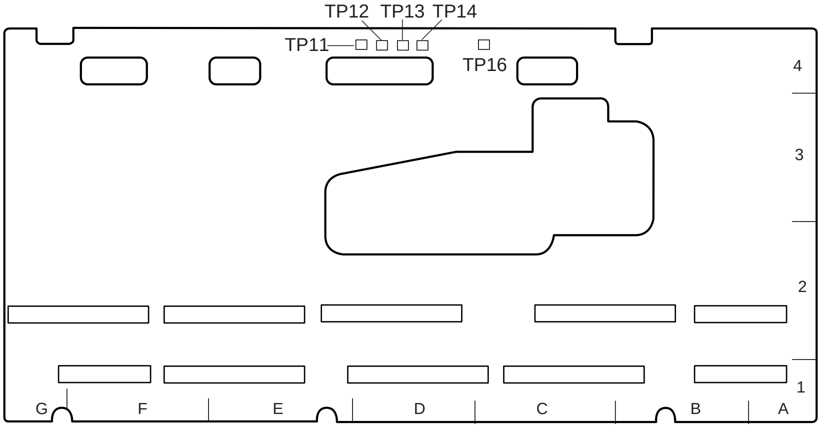
Note

To except the measurement error due to a dropout, repeat the measurement (step 3) several times (maximum five times) and check the specifications using the smallest value.

5. Eject the cassette tape.
6. When there is a channel which is out of the specifications, perform the adjustment of Section “5-5-7. Equalizer Adjustment” again.



EQ-76 board (Side B)



MB-825 board (Side A)

5-5-9. REC Current Adjustment

Preparation

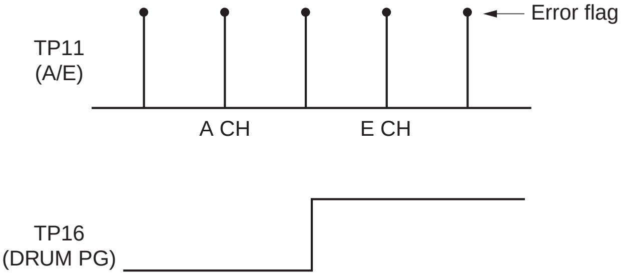
CONFI switch on the connector panel →
ON (REC CONFI mode)

Adjustment Procedure

1. Insert a blank tape to set the unit to the recording mode.
2. Set the oscilloscope as follows :
   DC mode
   CH-1 : 1 V/DIV
   CH-2 : 10 V/DIV
   TIME : 2 msec/DIV

3. A-channel adjustment
   Equipment : Oscilloscope
   Test points CH-1 : TP11 (D-4 : A) /MB-825
   CH-2 : TP16 (C-4 : A) /MB-825 (TRIG)
   Adjustment point : rec adj menu
   Specifications : Minimize error flags

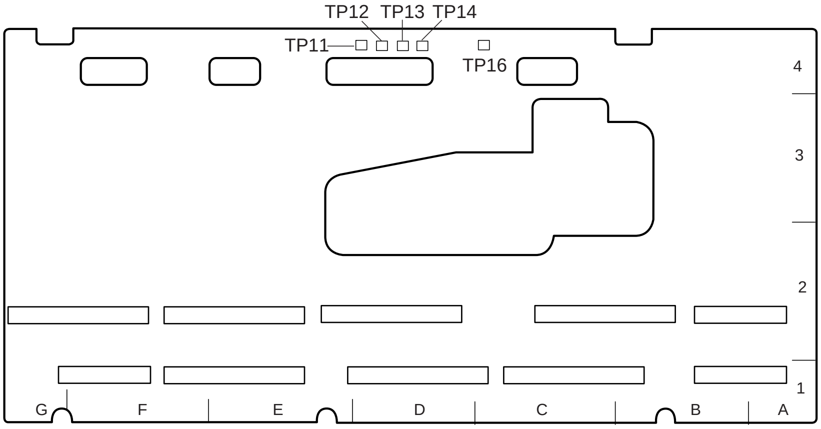
4. Perform the following steps on the rf adj menu with the personal computer.
5. Select "REC A-ch" using the N or P key.
6. Change the number (XX) of "REC A-ch" using the A or S key to minimize the error flags.



7. Adjust the B, C, D, E, F, G and H channels in the same way.

	Test point (CH-1)	Parameter
B ch	TP12 (D-4 : A) /MB-825	REC B-ch
C ch	TP13 (D-4 : A) /MB-825	REC C-ch
D ch	TP14 (D-4 : A) /MB-825	REC D-ch
E ch	TP11 (D-4 : A) /MB-825	REC E-ch
F ch	TP12 (D-4 : A) /MB-825	REC F-ch
G ch	TP13 (D-4 : A) /MB-825	REC G-ch
H ch	TP14 (D-4 : A) /MB-825	REC H-ch

8. Press the W key. After appearing "MON > rf adj", press the ENTER key to save the data in the NVRAM.
9. Eject the cassette tape.



MB-825 board (Side A)

5-5-10. REC CONFI Channel Condition Check

Adjustment Procedure

1. Insert a blank tape, and then set the unit to the recording mode.
2. Check to see that "MON>" appears on the display of a personal computer.

   *1 : When the rf adj menu is displayed, press the Q key to exit the menu.

3. Type "deck" and press the ENTER key twice to display the number (XXXX) of each channel.

```
MON>deck
Ach     Bch     Cch     Dch     Ech     Fch     Gch     Hch
XXXX    XXXX    XXXX    XXXX    XXXX    XXXX    XXXX    XXXX
```

4. Check to see that the number (XXXX) of each channel is within the specifications.

   Specifications : 0148 or less

Note

To except the measurement error due to a dropout, repeat the measurement (step 3) several times (maximum five times) and check the specifications using the smallest value.

5. Eject the cassette tape.
6. When there is a channel which is out of the specifications, perform the adjustment of Section "5-5-9. REC Current Adjustment" again.

5-5-11. Playback Parameter Adjustment

After implementing Section “5-5-10. REC CONFI Channel Condition Check”, perform this adjustment for all channels. Also, the channel that is out of the specifications checked in Section “5-5-13. Alignment Tape Channel Condition Check (2)” is required this adjustment.

Adjustment Procedure

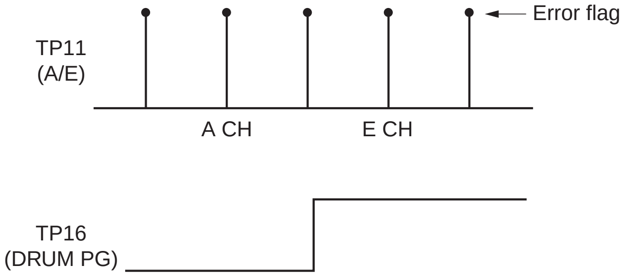
1. After performing the check of Section “5-5-10. REC CONFI Channel Condition Check”, perform the following steps of all channels.
   (1) Insert a blank tape and record for about 10 minutes.
   (2) Play back the recorded portion.

2. When the channel is out of the specifications at Section “5-5-13. Alignment Tape Channel Condition Check (2)”, perform the following operation.
   (1) Insert an alignment tape (HR5-1A), and then set the unit to the playback mode.

3. Set the oscilloscope as follows :
   DC mode
   CH-1 : 1 V/DIV
   CH-2 : 10 V/DIV
   TIME : 2 msec/DIV

4. When the A-channel is out of the specifications, adjust as follows :
   Equipment : Oscilloscope
   Test points CH-1 : TP11 (D-4 : A) /MB-825
   CH-2 : TP16 (C-4 : A) /MB-825 (TRIG)
   Adjustment point : rf adj menu
   Specifications : Minimize error flags

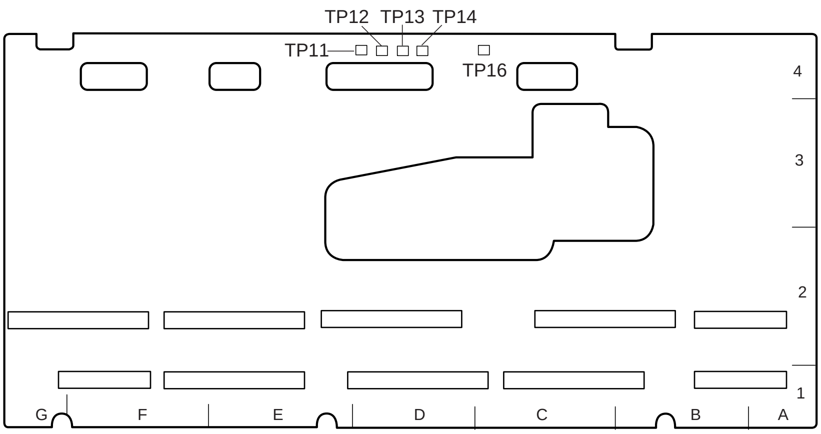
5. Perform the following steps on the rf adj menu with the personal computer.
6. Select “AMP A-ch” using the N or P key.
7. Change the number (XX) of “AMP A-ch” using the A or S key to minimize the error flags of A channel.
8. Select “PHASE A-ch” using the N or P key.
9. Change the number (XX) of “PHASE A-ch” using the A or S key to minimize the error flags of A channel.



10. When the B, C, D, E, F, G, or H channel is out of the specifications, adjust in the same way.

	Test point (CH-1)	Parameter
B ch	TP12 (D-4 : A) /MB-825	AMP B-ch, PHASE B-ch
C ch	TP13 (D-4 : A) /MB-825	AMP C-ch, PHASE C-ch
D ch	TP14 (D-4 : A) /MB-825	AMP D-ch, PHASE D-ch
E ch	TP11 (D-4 : A) /MB-825	AMP E-ch, PHASE E-ch
F ch	TP12 (D-4 : A) /MB-825	AMP F-ch, PHASE F-ch
G ch	TP13 (D-4 : A) /MB-825	AMP G-ch, PHASE G-ch
H ch	TP14 (D-4 : A) /MB-825	AMP H-ch, PHASE H-ch

11. Press the W key. After appearing “MON > rf adj”, press the ENTER key to save the data in the NVRAM.
12. Eject the cassette tape.



MB-825 board (Side A)

5-5-12. Self REC/PB Channel Condition Check

Adjustment Procedure

1. Insert a blank tape and record for one minute.
2. Play back the recorded portion.
3. Check to see that “MON >” appears on the screen of the personal computer.

   ∗1 : When the rf adj menu is displayed, press the Q key to exit the menu.

4. Type “deck” and press the ENTER key twice to display the number (XXXX) of each channel.

```
MON>deck
Ach    Bch    Cch    Dch    Ech    Fch    Gch    Hch
XXXX   XXXX   XXXX   XXXX   XXXX   XXXX   XXXX   XXXX
```

5. Check to see that the value of each channel (XXXX) is within the specifications.

   Specifications : 0015 or less

Note

To except the measurement error due to a dropout, repeat the measurement (step 4) several times (maximum five times) and check the specifications using the smallest value.

6. Eject the cassette tape.
7. When all channels are within the specifications, perform the following Section “5-5-13. Alignment Tape Channel Condition Check (2)”.

   When there is a channel which is out of the specifications, perform the following steps.

   (1) Clean the video heads using the cleaning tape for five seconds.
   (2) Insert a blank tape, and then warm up the unit for ten minutes on the playback mode.
   (3) Perform the adjustment of Sections “5-5-9. REC Current Adjustment” and later again.

5-5-13. Alignment Tape Channel Condition Check (2)

Adjustment Procedure

1. Insert an alignment tape (HR5-1A), and then set the unit to the playback mode.
2. Type “deck” and press the ENTER key twice to display the value of each channel (XXXX).

```
MON>deck
Ach    Bch    Cch    Dch    Ech    Fch    Gch    Hch
XXXX   XXXX   XXXX   XXXX   XXXX   XXXX   XXXX   XXXX
```

3. Check to see that the value of each channel (XXXX) is within the specifications.

   Spec. : 0037 or less

Note

To except the measurement error due to a dropout, repeat the measurement (step 2) several times (maximum five times) and check the specifications using the smallest value.

4. Eject the cassette tape.
5. When there is a channel which is out of the specifications, perform the adjustment of Section “5-5-11. Playback Parameter Adjustment” again.

   When all channels are within the specifications, set the CONFI switch on the connector panel to OFF as the RF system adjustment is completed.

5-5-14. Setting after RF System Adjustment

- CONFI switch on the connector panel → OFF

5-6. Video System Adjustment

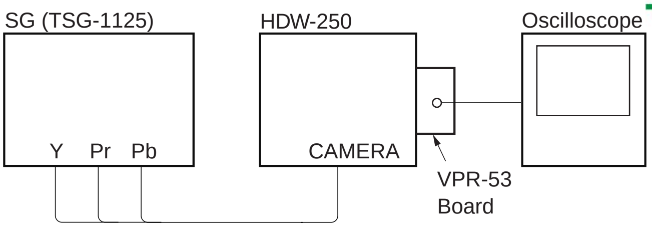
Preparation

- Set the unit to the EE mode.
  Mode switch on the control panel → PB/EE
  Set the unit to the STOP mode (Insert a blank tape.)
- CAMERA/VIDEO/HD SDI input selector switch on the connector panel → CAMERA
- CONFI switch on the connector panel → OFF
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <VIDEO (HD)>
  ITEM : SETUP LEV → 7.5 %

  PAGE : <VIDEO (HD)>
  ITEM : SDI OUT → ON

- As for the setup menu operation, refer to the Maintenance Manual Part 1, Section 3-1.
- As for the DIAG menu operation, refer to the Maintenance Manual Part 1, Section 3-2.

Connection 1 (for Section 5-6-13 to 5-6-21)

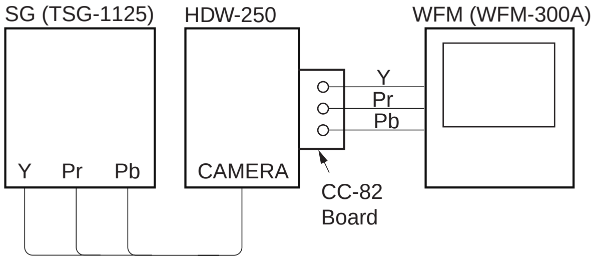

SG (TSG-1125)
Y
Pr
Pb
HDW-250
CAMERA
Oscilloscope
VPR-53
Board

5-6-1. HD Video Input Level Adjustment

Preparation

- CAMERA/VIDEO/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pr/Pb signal to the CAMERA connector.
  Signal generator : 100 % color bar

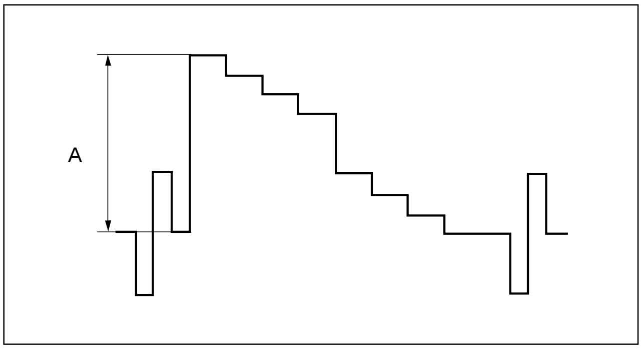
Connection

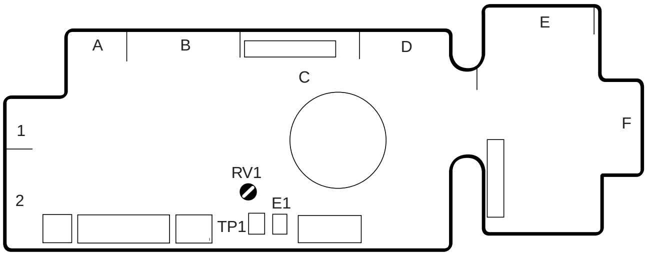

SG (TSG-1125)
Y
Pr
Pb
HDW-250
CAMERA
WFM (WFM-300A)
Y
Pr
Pb
CC-82
Board

Adjustment Procedure

Y level

1. Equipment : Waveform monitor
   Test point : TP1 (C-2 : A) /CC-82
   GND : E1 (C-2 : A) /CC-82
   Adjustment point : ⊘RV1 (C-2 : A) /CC-82
   Specifications : A = 1.4 ±0.014 Vp-p

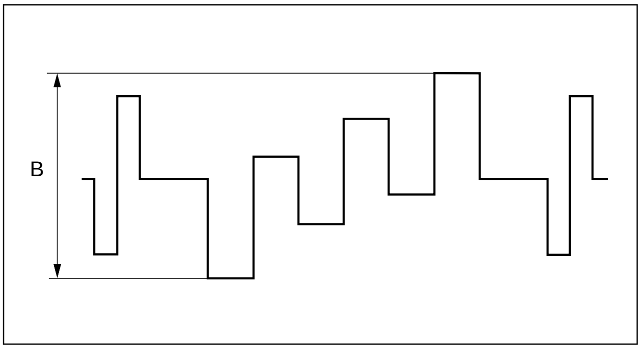



A
B
C
D
E
F
1
2
RV1
E1
TP1

CC-82 board (Side A)

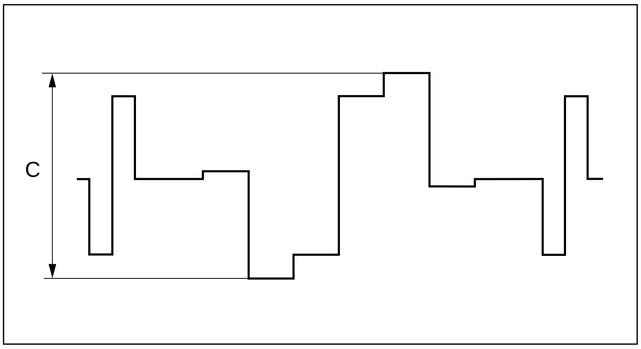
Pb level

1. Equipment : Waveform monitor
   Test point : TP2 (C-2 : A) /CC-82
   GND : E1 (C-2 : A) /CC-82
   Adjustment point : ⊘RV2 (D-2 : A) /CC-82
   Specifications : B = 1.4 ±0.014 Vp-p



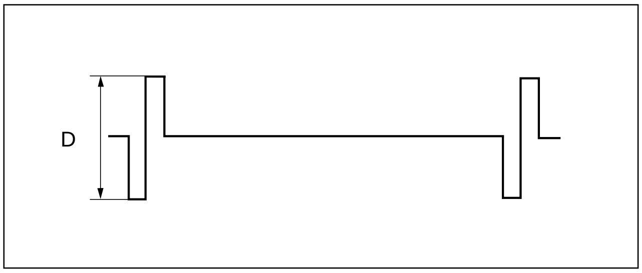
Pr level

1. Equipment : Waveform monitor
   Test point : TP3 (D-1 : A) /CC-82
   GND : E1 (C-2 : A) /CC-82
   Adjustment point : ⊘RV3 (D-1 : A) /CC-82
   Specifications : C = 1.4 ±0.014 Vp-p



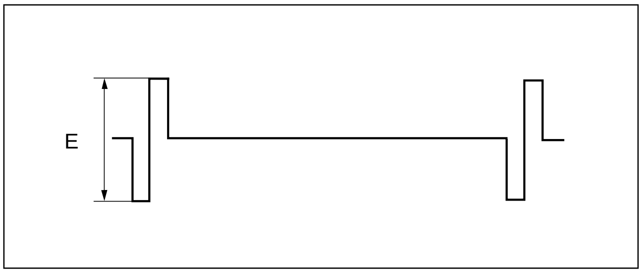
SYNC level

1. Equipment : Waveform monitor
   Test point : TP4 (E-2 : A) /CC-82
   GND : E1 (C-2 : A) /CC-82
   Adjustment point : ⊘RV4 (E-2 : A) /CC-82
   Specifications : D = 1.2 ±0.012 Vp-p

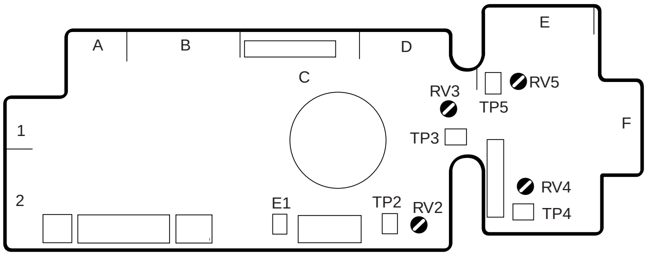


2. On the setup menu, set PAGE and ITEM as follows :
   PAGE : <VTR CONTROL>
   ITEM : SV/AV REF → EXT

3. Equipment : Waveform monitor
   Test point : TP5 (E-1 : A) /CC-82
   GND : E1 (C-2 : A) /CC-82
   Adjustment point : ⊘RV5 (E-1 : A) /CC-82
   Specifications : E = 600 ±6 mVp-p



4. Setting after adjustment
   Set the switches and menu back to the original settings.



CC-82 board (Side A)

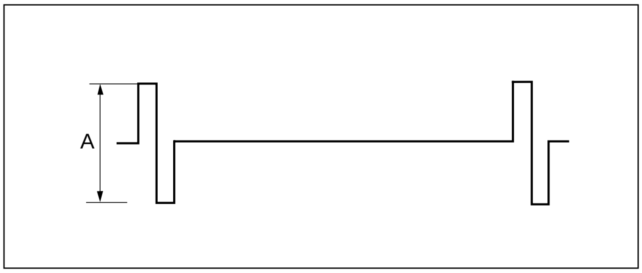
5-6-2. SYNC OUT Adjustment

Preparation

- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A)/VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : TP500 (A-3 : A) /VPR-53
   Adjustment point : ⊘RV500 (B-2 : A) /VPR-53
   Specifications : A = 600 ±6 mVp-p



2. Setting after adjustment
   Set the menu back to the original setting.

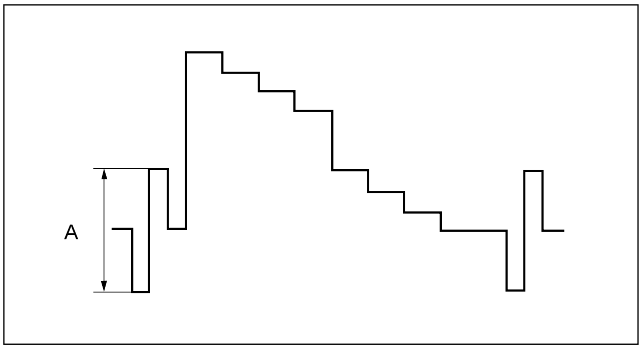
5-6-3. Y-channel SYNC Level Adjustment

Preparation

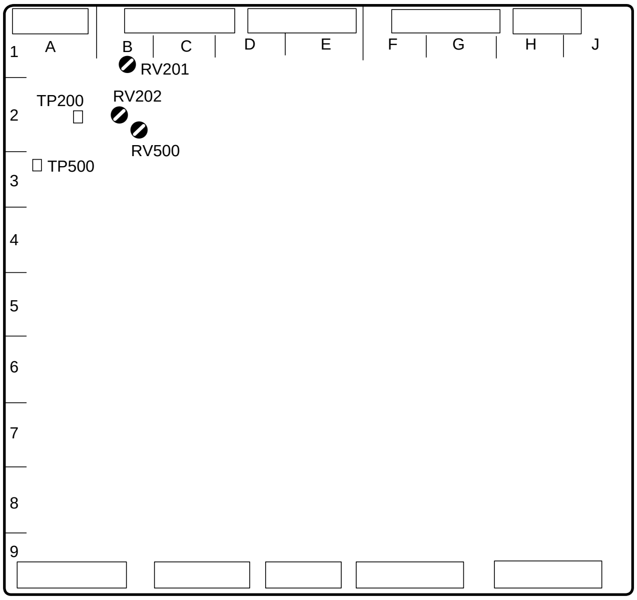
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : TP200 (A-2 : A) /VPR-53
   Adjustment point : ⊘RV202 (B-2 : A) /VPR-53
   Specifications : A = 600 ±6 mVp-p



2. Setting after adjustment
   Set the menu back to the original setting.



VPR-53 board (Side A)

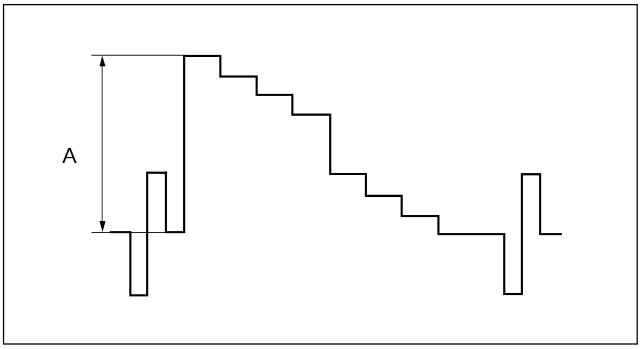
5-6-4. Y DA OUT Level Adjustment

Preparation

- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : TP200 (A-2 : A) /VPR-53
   Adjustment point : DIAG menu
2. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <PROC2> <DA VR>
   ITEM : Y LEVEL
3. Set the A to 700 ±7 mVp-p using the UP and DOWN buttons.



4. Press the SET button to save the data.
5. Setting after adjustment
   Set the menu back to the original setting.

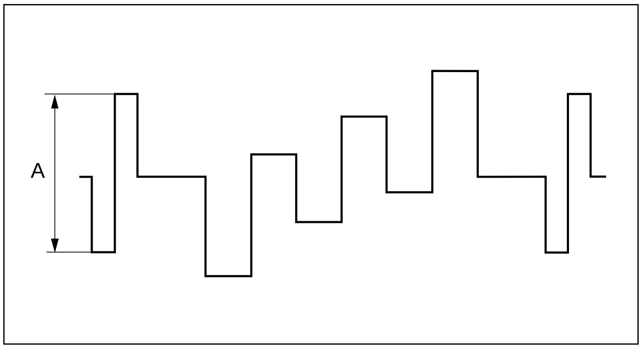
5-6-5. Pb-channel SYNC Level Adjustment

Preparation

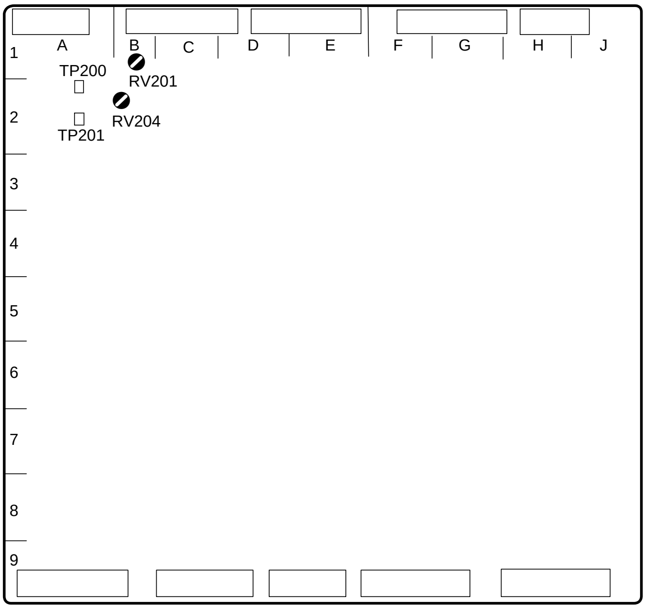
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : TP201 (A-2 : A) /VPR-53
   Adjustment point : ⊘RV204 (B-2 : A) /VPR-53
   Specifications : A = 600 ±6 mVp-p



2. Setting after adjustment
   Set the menu to the original setting.



VPR-53 board (Side A)

5-6-6. Pb DA OUT Level Adjustment

Preparation

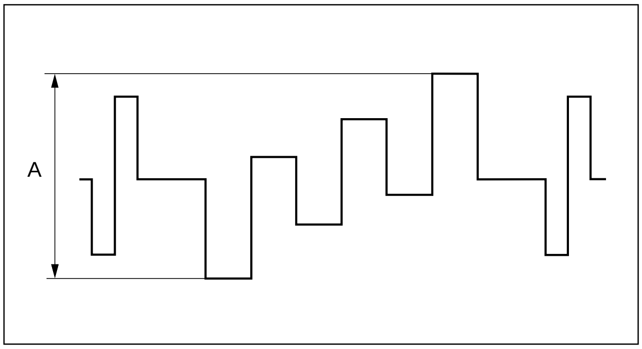
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : TP201 (A-2 : A) /VPR-53
   Adjustment point : DIAG menu

2. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <PROC2> <DA VR>
   ITEM : C LEVEL

3. Set A to 700 ±7 mVp-p using the UP and DOWN buttons.



4. Press the SET button to save the data.
5. Setting after adjustment
   Set the menu back to the original setting.

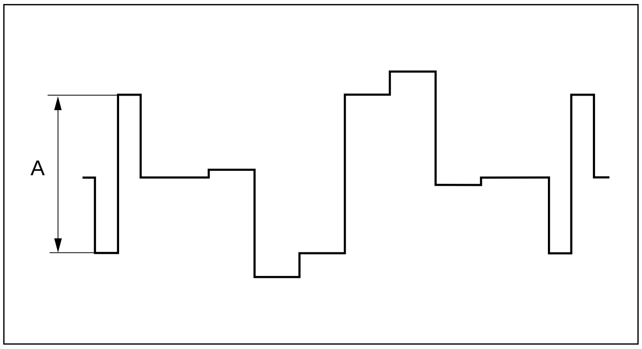
5-6-7. Pr-channel SYNC Level Adjustment

Preparation

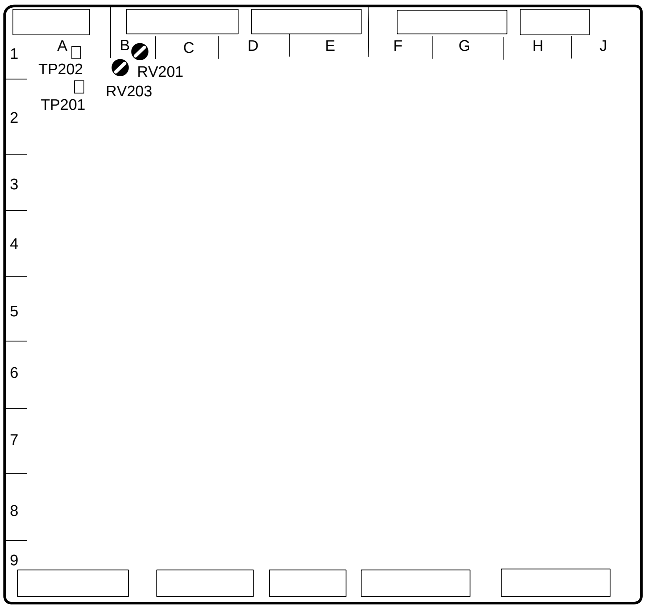
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : TP202 (A-1 : A) /VPR-53
   Adjustment point : ⊘RV203 (B-1 : A) /VPR-53
   Specifications : A = 600 ±6 mVp-p



2. Setting after adjustment
   Set the menu back to the original setting.



VPR-53 board (Side A)

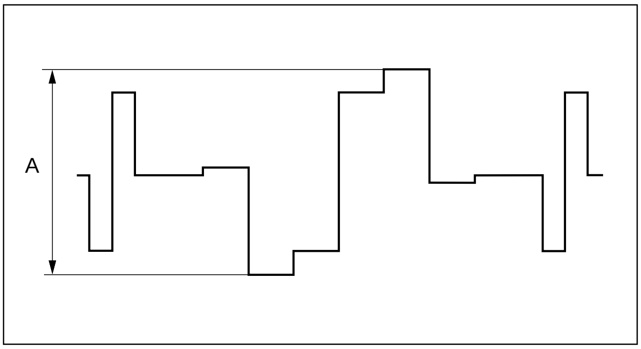
5-6-8. Pr DA OUT Level Adjustment

Preparation

- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : TP202 (A-1 : A) /VPR-53
   Adjustment point : ⊘RV206 (B-2 : A) /VPR-53
   Specifications : A = 700 ±7 mVp-p



2. Setting after adjustment
   Set the menu back to the original setting.

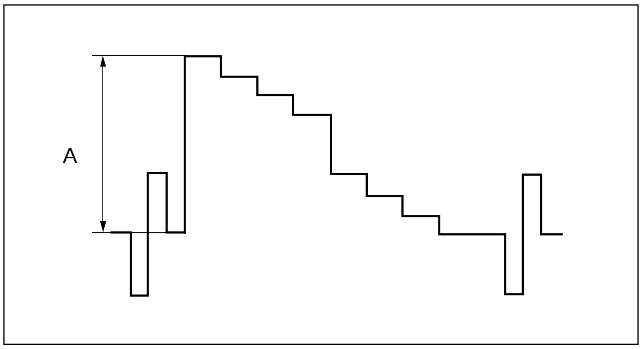
5-6-9. Video OUT Y Level Adjustment

Preparation

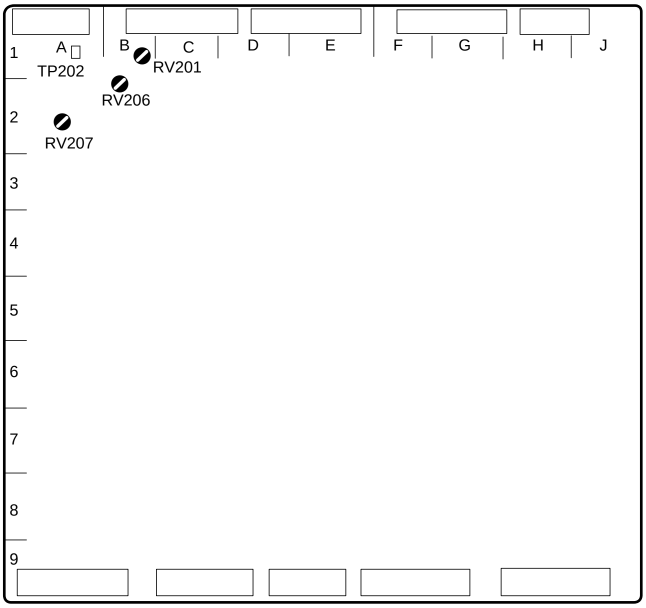
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : VIDEO OUT Y connector on the connector panel
   Adjustment point : ⊘RV207 (A-2 : A) /VPR-53
   Specifications : A = 700 ±7 mVp-p (75 Ω)



2. Setting after adjustment
   Set the menu back to the original setting.



VPR-53 board (Side A)

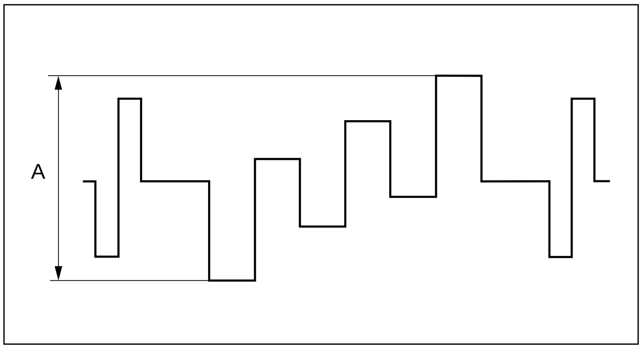
5-6-10. Video OUT Pb Level Adjustment

Preparation

- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : Video OUT Pb connector on the connector panel
   Adjustment point : ⊘RV209 (A-1 : A) /VPR-53
   Specifications : A = 700 ±7 mVp-p (75 Ω)



2. Setting after adjustment
   Set the menu back to the original setting.

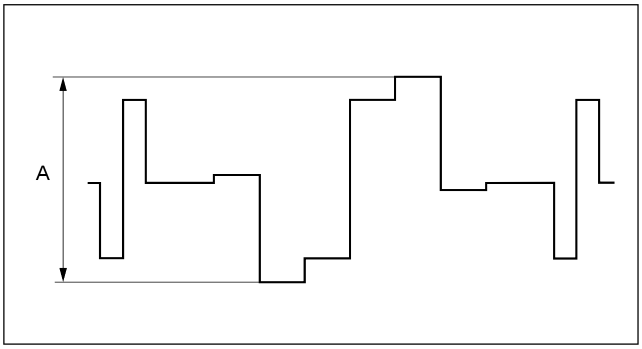
5-6-11. Video OUT Pr Level Adjustment

Preparation

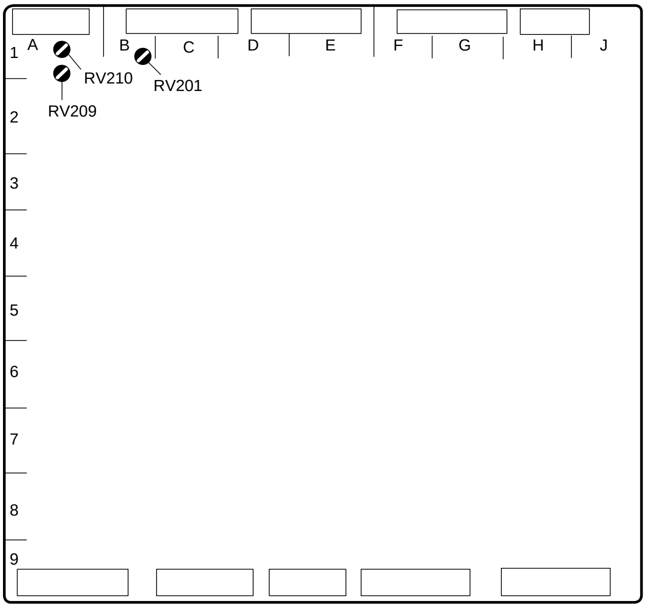
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- R201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : VIDEO OUT Pr connector on the connector panel
   Adjustment point : ⊘RV210 (A-1 : A) /VPR-53
   Specifications : A = 700 ±7 mVp-p (75 Ω)



2. Setting after adjustment
   Set the menu back to the original setting.



VPR-53 board (Side A)

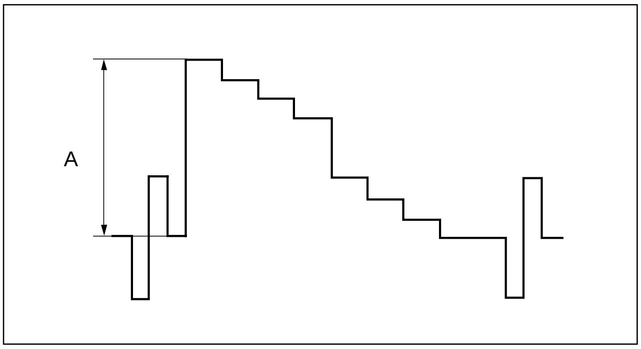
5-6-12. Return Video Level Adjustment

Preparation

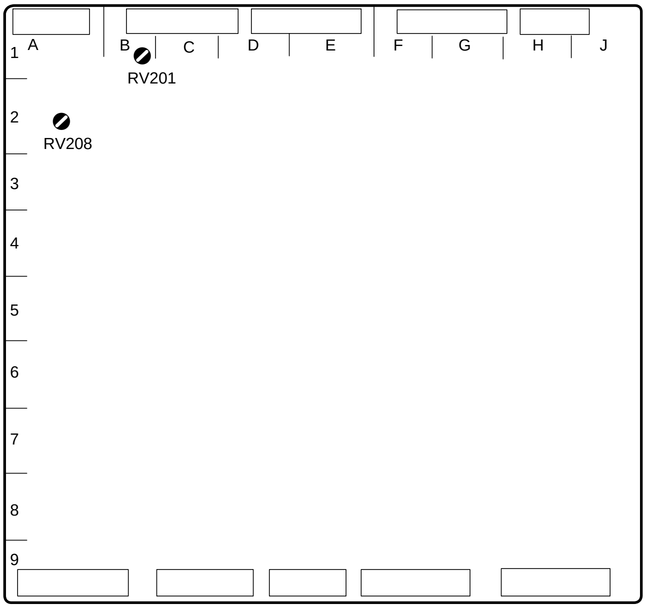
- On the setup menu, set PAGE and ITEM as follows :
  PAGE : <SYSTEM>
  ITEM : V TEST SG → CB
- RV201 (B-1 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : 18-pin of the 26-pin CAMERA connector on the connector panel
   Adjustment point : ⊘RV208 (A-2 : A) /VPR-53
   Specifications : A = 700 ±7 mVp-p (75 Ω)



2. Setting after adjustment
   Set the menu back to the original setting.



VPR-53 board (Side A)

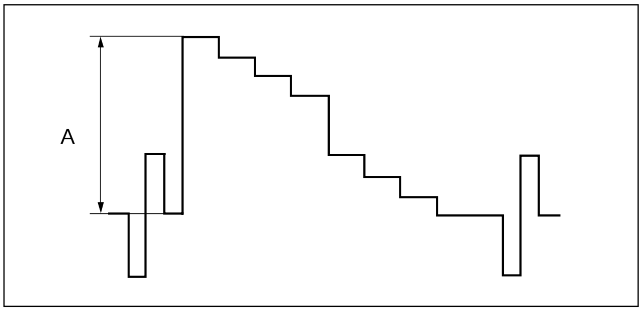
5-6-13. Video IN Y Level Adjustment

Preparation

- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector. (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP3 (A-4: A) /VPR-53
Adjustment point : ⊘RV7 (A-3 : A) /VPR-53
Specifications : A = 1.4 ±0.014 Vp-p



2. Setting after adjustment
   Set the switches back to the original settings.

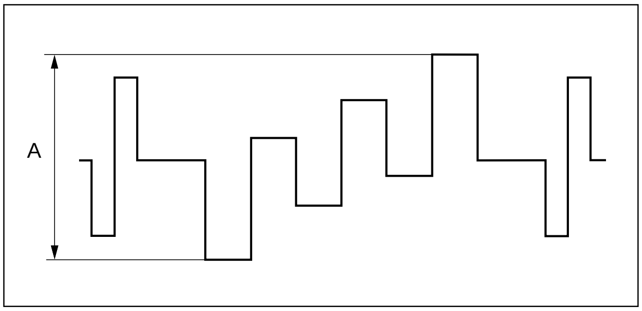
5-6-14. Video IN Pb Level Adjustment

Preparation

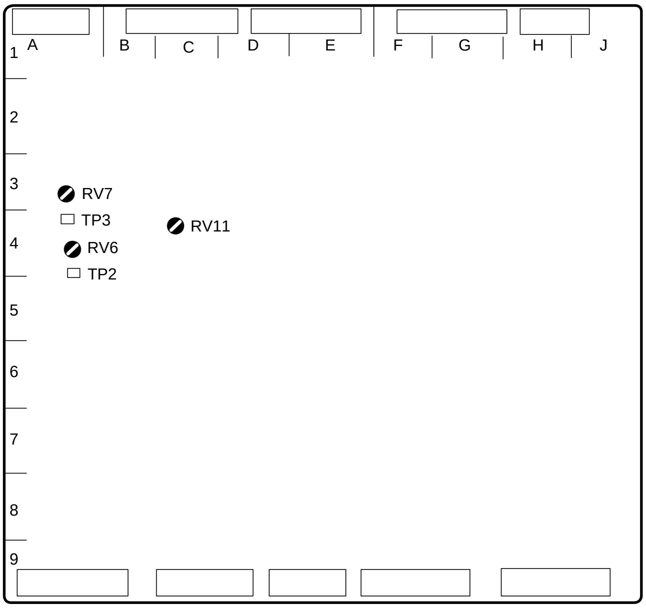
- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector. (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP2 (A-4 : A) /VPR-53
Adjustment point : ⊘RV6 (A-4 : A) /VPR-53
Specifications : A = 1.4 ±0.014 Vp-p



2. Setting after adjustment
   Set the switches back to the original settings.



VPR-53 board (Side A)

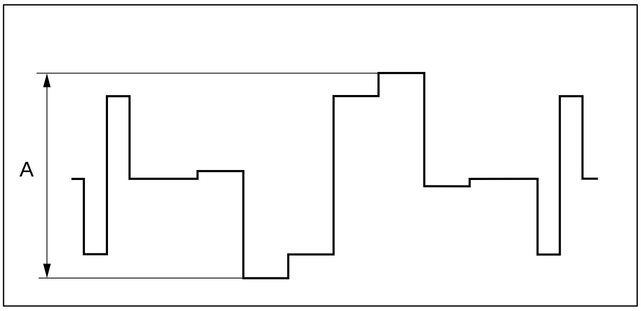
5-6-15. Video IN Pr Level Adjustment

Preparation

- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector. (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP1 (A-5 : A) /VPR-53
Adjustment point : ⊘RV5 (A-5 : A) /VPR-53
Specifications : A = 1.4 ±0.014 Vp-p



2. Setting after adjustment
Set the switches back to the original settings.

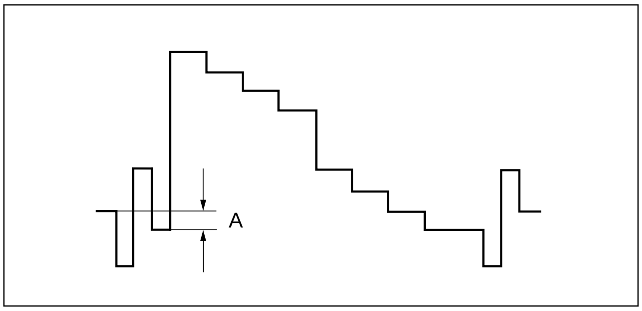
5-6-16. Video IN Y DC Level Adjustment

Preparation

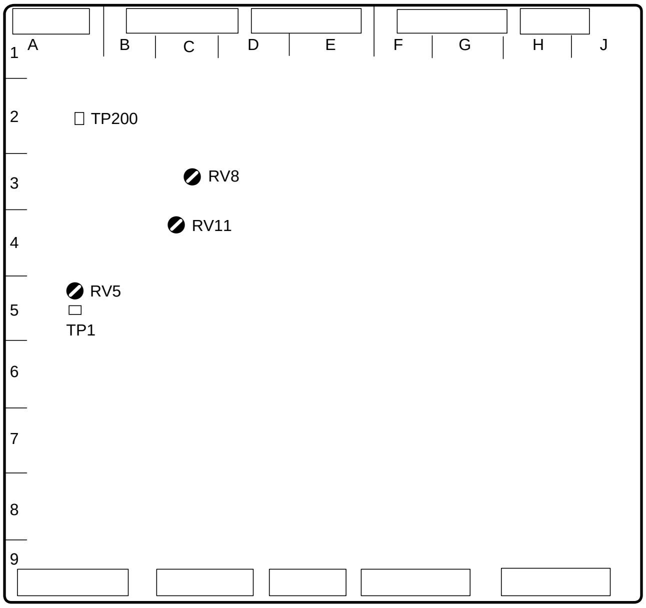
- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector. (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A)/VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP200 (A-2 : A) /VPR-53
Adjustment point : ⊘RV8 (C-3 : A) /VPR-53
Specifications : A = 0 ±20 mV



2. Setting after adjustment
Set the switches back to the original settings.



VPR-53 board (Side A)

5-6-17. Video IN Y AD Level Adjustment

Preparation

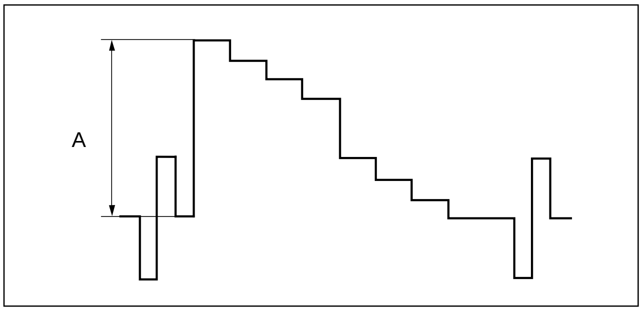
- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector.
  (Connection 1)
  Signal generator : 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP200 (A-2 : A) /VPR-53
Adjustment point : DIAG menu

2. On the DIAG menu, set PAGE and ITEM as follows :
PAGE : <TEST> <PROC2> <AD VR>
ITEM : Y level

3. Set the A to 700 ±7 mVp-p using the UP and DOWN buttons.



4. Press the SET button to save the data.
5. Setting after adjustment
Set the switches and menu back to the original settings.

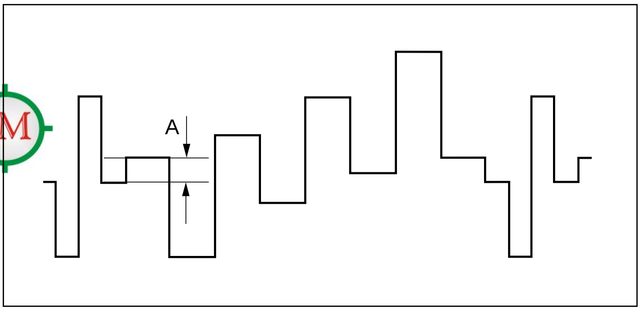
5-6-18. Video IN Pb DC Level Adjustment

Preparation

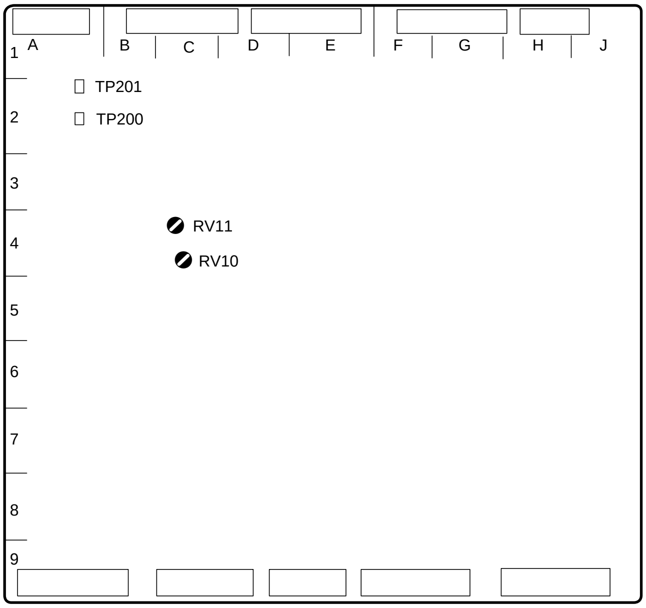
- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector.
  (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP201 (A-2 : A) /VPR-53
Adjustment point : ⊘RV10 (C-4 : A) /VPR-53
Specifications : A = 0 ±20 mV



2. Setting after adjustment
Set the switches back to the original settings.



VPR-53 board (Side A)

5-6-19. Video IN Pb AD Level Adjustment

Preparation

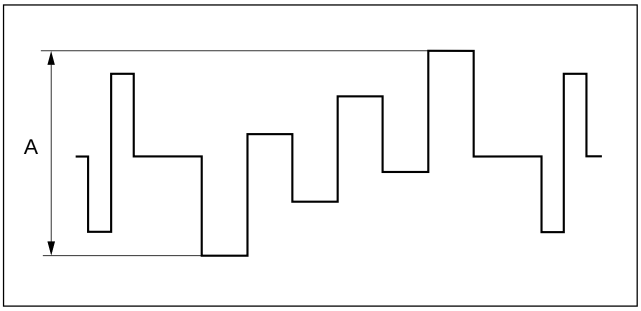
- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector. (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP201 (A-2 : A) /VPR-53
Adjustment point : DIAG menu

2. On the DIAG menu, set PAGE and ITEM as follows :
PAGE : <TEST> <PROC2> <AD VR>
ITEM : PB level

3. Set the A to 700 ±7 mVp-p using the UP and DOWN buttons.



4. Press the SET button to save the data.
5. Setting after adjustment
Set the switches and menu back to the original settings.

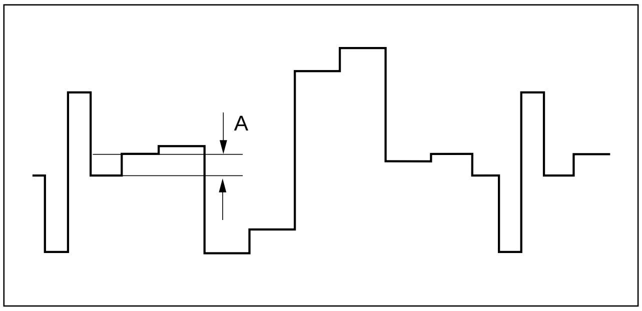
5-6-20. Video IN Pr DC Level Adjustment

Preparation

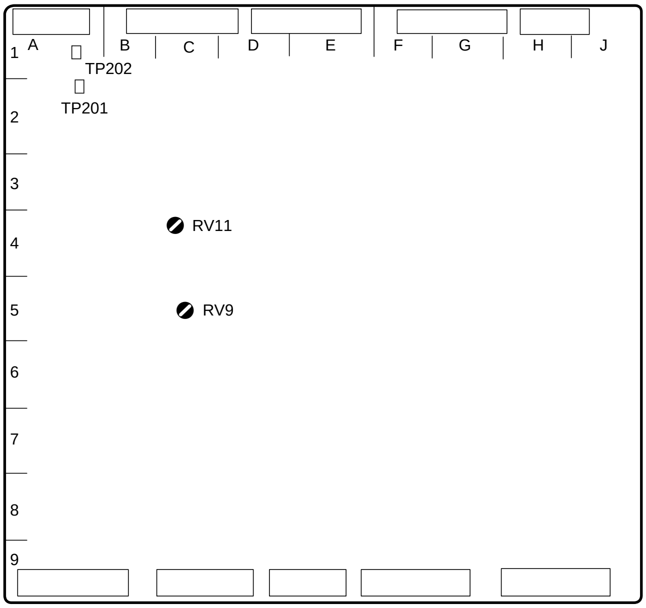
- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the CAMERA connector. (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

1 Equipment : Oscilloscope
Test point : TP202 (A-1 : A) /VPR-53
Adjustment point : ⊘RV9 (C-5 : A) /VPR-53
Specifications : A = 0 ±20 mV



2. Setting after adjustment
Set the switches back to the original settings.



VPR-53 board (Side A)

5-6-21. Video IN Pr AD Level Adjustment

Preparation

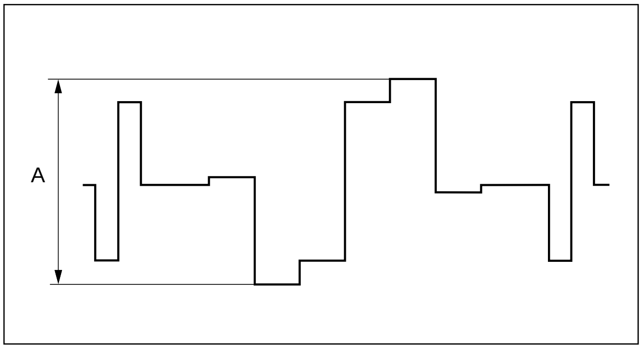
- CAMERA/HD SDI input selector switch on the connector panel → CAMERA
- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- Input the Y/Pb/Pr signal to the connector panel. (Connection 1)
  Signal generator: 100 % color bar
- RV11 (C-4 : A) /VPR-53 → Turn clockwise fully (Max.)

Adjustment Procedure

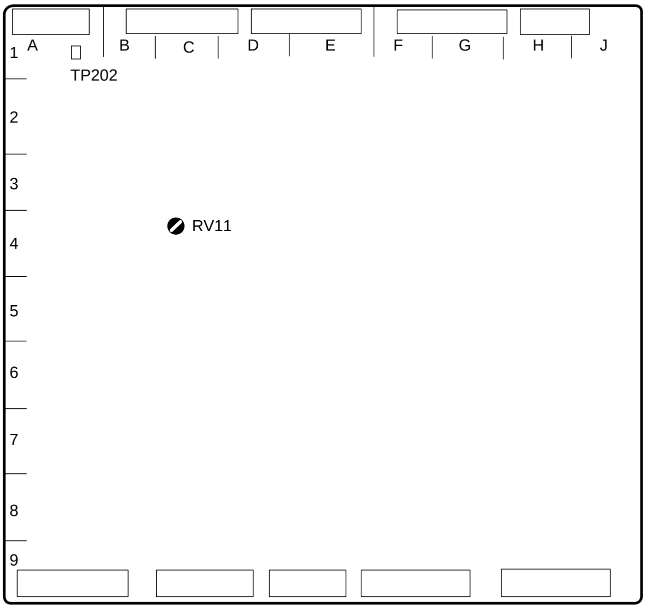
1. Equipment : Oscilloscope
   Test point : TP202 (A-1 : A)/VPR-53
   Adjustment point : DIAG menu

2. On the DIAG menu, set PAGE and ITEM as follows :
   PAGE : <TEST> <PROC2> <AD VR>
   ITEM : PR LEVEL

3. Set the A to 700 ±7 mVp-p using the UP and DOWN buttons.



4. Press the SET button to save the data.
5. Setting after adjustment
   Set the switches and menu back to the original settings.



VPR-53 board (Side A)

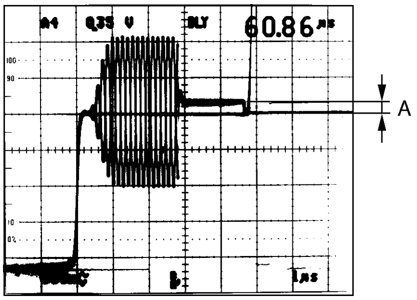
5-6-22. Pedestal Level Adjustment

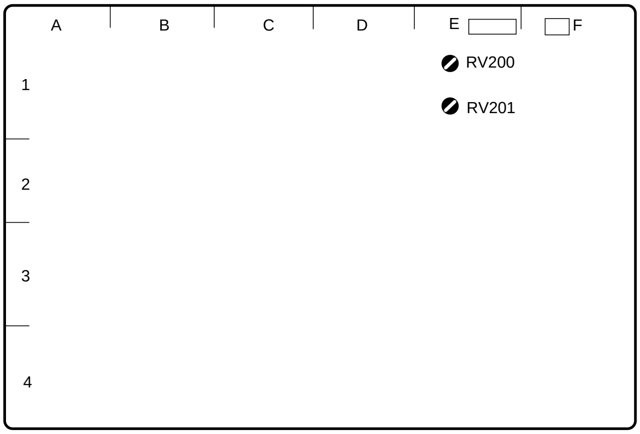
Preparation

- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- CAMERA/HD SDI input selector switch on the connector panel → HD SDI
- Video level knob on the connector panel → mechanism center
- On the setup menu, set PAGE and ITEM as follows :
  V TEST SG → CB

Adjustment Procedure

1. Equipment : Oscilloscope
   Test point : Composite OUT connector on the connector panel
   Adjustment point : ⊘RV201 (E-1 : A) /DCP-22
   Specifications : A = 0 ±5 mV





DCP-22 board (Side A)

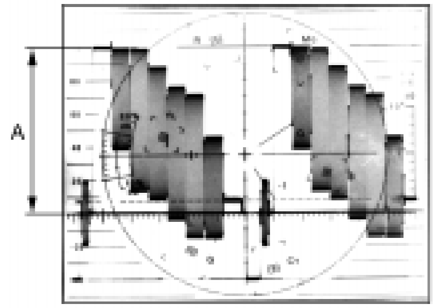
5-6-23. Video Level Adjustment

Preparation

- Set the unit to the EE mode.
  MODE switch on the connector panel → PB/EE
  Set the unit to the STOP mode. (Insert a blank tape.)
- CAMERA/HD SDI input selector switch on the connector panel → HD SDI
- Video level knob on the connector panel → mechanism center
- On the setup menu, set PAGE and ITEM as follows :
  V TEST SG → CB

Adjustment Procedure

1 Equipment : Waveform monitor
  Test point : Composite OUT connector on the connector panel
  Adjustment point : ⊘RV200 (E-1 : A) /DCP-22
  Specifications : A = 100 ±1 IRE (714 ±7 mVp-p)



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B&P Company

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HD DIGITAL VIDEOCASSETTE RECORDER

HDW-250

HDCAM

ISR Interactive Status Reporting

MAINTENANCE MANUAL Part 2
Volume 2 1st Edition
Serial No. 10001 and Higher: HDW-250 (UC)
Serial No. 30001 and Higher: HDW-250 (J)

⚠警告

このマニュアルは，サービス専用です。
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⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

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Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

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Manual Structure

Purpose of this manual

This manual is the maintenance manual of the HD Digital Videocassette Recorder HDW-250.
This manual is intended for use by the trained system and service engineers, describes the information (schematic diagrams, board layouts and spare parts list) that premise the service based on parts replacement.

Related manuals

The following manuals are prepared in addition to the Maintenance Manual Part 2, Volume 1 and Volume 2 (this manual).

- **Operation Manual (Supplied with HDW-250)**
  This manual describes how to operate the HDW-250.

- **Maintenance Manual Part 1 (Supplied with HDW-250)**
  This manual describes the maintenance information and the information on primary services.

Contents

The following is a summary of all the sections for understanding the contents of this manual.

Maintenance Manual Part 2 Volume 2

Section 1 Semiconductor Pin Assignments
This section describes the pin assignments of semiconductors used in HDW-250.

Section 2 Spare Parts
This section describes the spare parts.

Section 3 Block Diagrams
This section describes the overall block diagram and the block diagrams of the respective signal systems.

Section 4 Board Layouts
This section describes the board layout and locations.

Section 5 Schematic Diagrams
This section describes the frame diagram and the schematic diagrams of the boards.

Maintenance Manual Part 2 Volume 1

Section 1 Service Overview
Section 2 Mechanical Parts Replacement
Section 3 Tape Path Alignment
Section 4 Circuit Boards Replacement
Section 5 Electrical Alignment

Section 1
Semiconductor Pin Assignments

Semiconductors of which functions are equivalent are described here. For parts replacement, refer to the section of Spare Parts in this manual. The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

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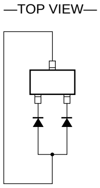
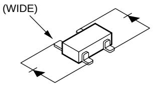
Diode, LED

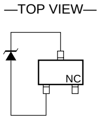
DIODE



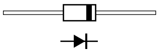
1S2836
1S2836-T1
DAP202U
DAP202UT106
RB717F
RB717F-T106



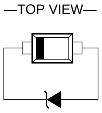
DA227TL



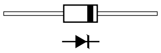
RD15M-B1
RD15M-T1B
RD2.4M-B
RD2.4M-T1B
RD4.7M-B
RD4.7M-T1B
RD6.8M-T1B



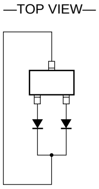
1SS120A
1SS120A-TJ
ERA82-004TP1
ERA85-009
ERB83-004
ERB83-004TP1



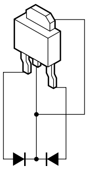
DTZ-TT11-12
DTZ12
MA8047
MA8047-TX
RD3.6UH-T1
RD3.9UH-T1
RD5.6SB
RD5.6SB-T1



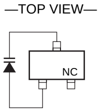
RD2.0ESB2



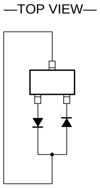
1S2837-T1
1SS184
DAN202U
DAN202UT106
RB715F
RB715F-T106



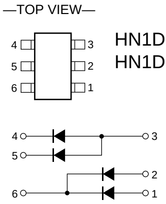
EA60QC06-TE16F2



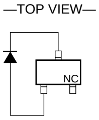
SB05-05CP
SB05-05CP-TB



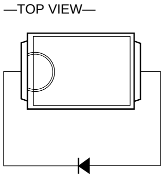
1SS123-T1
1SS226
DA204U
DA204UT106
SB007T03Q
SB007T03Q-TL


—TOP VIEW—
4
5
6
3
2
1
4
3
5
2
6
1

HN1D03FU-TE85L
HN1D03FU-TE85R

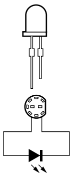


1SS294
1SS294-TE85L
SB007-03CP
SB007-03CP-TB
SB01-05CP
SB01-05CP-TB
SB01-15CP
SB01-15CP-TB

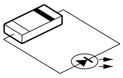


MBRS130LT3

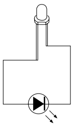
LED



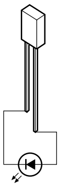
BR5305S



CL-150PG-CD
CL-150PG-CD-T
CL-150R-CD
CL-150R-CD-T



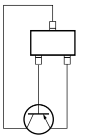
EBR3402S



PR5351K-TP-J304K

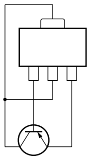
TRANSISTOR

—TOP VIEW—

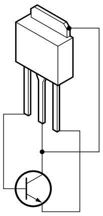


2SA1162G
2SA1330-06
2SA1330-T1O6
2SA1462
2SA1462-T1Y33Y34
2SA1610-T1Y33
2SA1610-Y33
2SA1611-M5M6
2SA1611-M6
2SA1611-T1M7
2SA1611T1-M5M6
2SA1885-T106
2SA1885-TL
2SA812-T1-M5M6
2SB1295-UL5
2SB1295-UL5-TB
2SB1295-UL6-TB
2SB815B7-TB

—TOP VIEW—

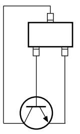


2SA1213Y-TE12L
2SB1114-T1ZL
2SB1121-ST
2SB798-DL



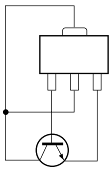
2SB1202FA-T-TL

—TOP VIEW—

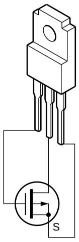


2SC1623
2SC1623-T1-L5L6
2SC3360-N15
2SC3360-T1N15
2SC3735-L-B35
2SC3735-T1B-B35
2SC4177-L6
2SC4177-T1L5L6
2SC4213-B
2SC4213B-TE85L
2SC5008
2SC5008-T1
2SD1935-CT7
2SD1935-CT7-TB
2SD2114KT146
2SD596-T1DV3
2SD596DV345

—TOP VIEW—

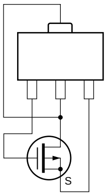


2SC2873Y-TE12L
2SC2982C-TE12L
2SD1614-T1XL
2SD1623-S

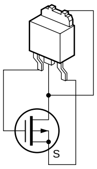


2SJ176

—TOP VIEW—

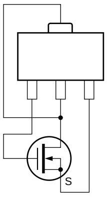


2SJ187
2SJ187-TD

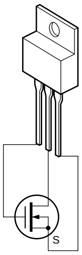


2SJ530S-TL

—TOP VIEW—

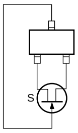


2SK2151-TD

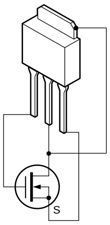


2SK2956

—TOP VIEW—

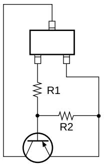


2SK711-BL
2SK711-BL/V-TE85L
2SK852-T1X2
2SK852-X2
2SK94-T1X3
2SK94-X4



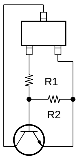
2SK738

—TOP VIEW—



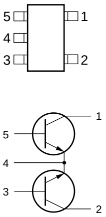
DTA114EKA-T146
(R1, R2=10 K)
DTA123JUA-T106
(R1=2.2 K, R2=47 K)
DTA124EUA-T106
(R1, R2=22 K)
DTA124XE-TL
(R1=22 K, R2=47 K)
DTA144EE
DTA144EE-TL
DTA144EKA-T146
(R1, R2=47 K)
DTA144EUA-T106
(R1, R2=47 K)
DTA144WE
DTA144WE-TL

—TOP VIEW—



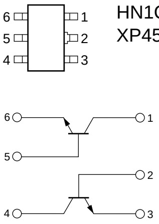
DTC114YKA-T146
(R1=10 K, R2=47 K)
DTC124EUA-T106
(R1, R2=22 K)
DTC124XE
(R1=22 K, R2=47 K)
DTC124XE-TL
DTC144EE
(R1, R2=47 K)
DTC144EE-TL
DTC144EUA-T106
(R1, R2=47 K)
DTC144WE
DTC144WE-TL

—TOP VIEW—



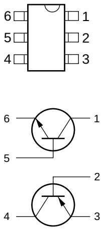
FMW10 (ROHM)
FMW10-T148

—TOP VIEW—



HN1C01FU-TE85R
XP4501-TXE

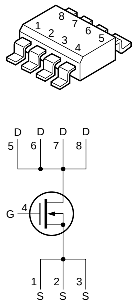
—TOP VIEW—



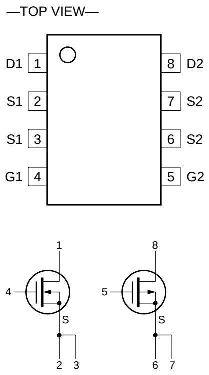
IMZ1
IMZ1T109

Transistor, Others

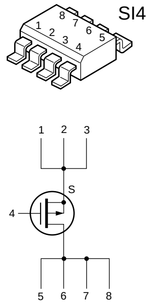
SI4416DY-T1
SI4450DY-T1


1 2 3 4 5 6 7 8
D D D D
5 6 7 8
G 4
1 2 3
S S S

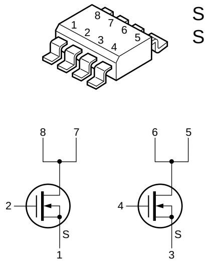
SI6542DQ-T1
SI6542DQ-TL


—TOP VIEW—
D1 1
S1 2
S1 3
G1 4
8 D2
7 S2
6 S2
5 G2
1
4
S
2 3
8
5
S
6 7

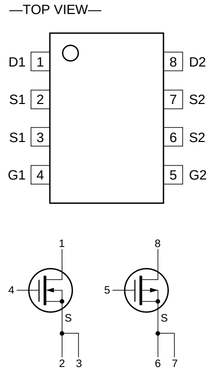
SI4435DY-T1-REVA


1 2 3 4 5 6 7 8
1 2 3
S
4
5 6 7 8

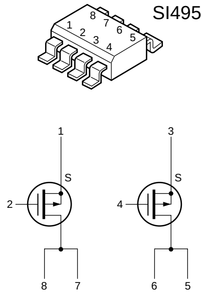
SI9936DY
SI9936DY-T1


1 2 3 4 5 6 7 8
8 7
2
S
1
6 5
4
S
3

SI4532DY-T1

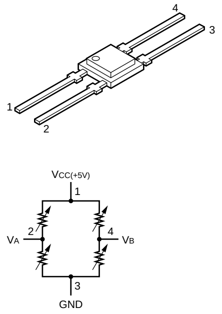

—TOP VIEW—
D1 1
S1 2
S1 3
G1 4
8 D2
7 S2
6 S2
5 G2
1
4
S
2 3
8
5
S
6 7

SI4953DY-T1

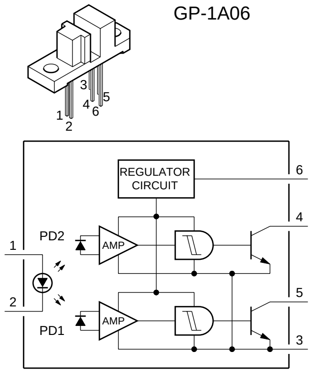

1 2 3 4 5 6 7 8
1
S
2
8 7
3
S
4
6 5

OTHERS

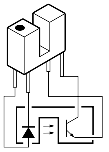
DM-230-1


4
3
1
2
VCC(+5V)
1
2
VA
4
VB
3
GND

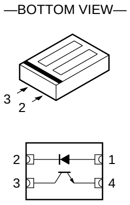
GP-1A06


3 5
4 6
1
2
REGULATOR CIRCUIT
6
4
1
PD2
AMP
2
PD1
AMP
5
3

GP1S54



PR-11-C
PR-11-C-T


—BOTTOM VIEW—
3
2
2
3
1
4

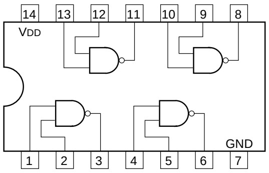
http://getMANUAL.com

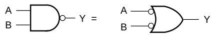
IC

74LCX00MTCX (NS)
SN74HC00APW-E05
SN74HC00APW-E20 (TI)
TC74LCX00FT(EL) (TOSHIBA)
TC74VHC00FT(EL) (TOSHIBA)
TC74VHCT00AFT(EL) (TOSHIBA)

C-MOS QUAD 2-INPUT NAND GATES

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

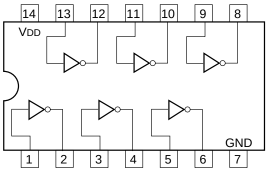
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

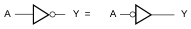
0 ; LOW LEVEL
1 ; HIGH LEVEL

74LCX04MTCX (NS)
74VHC04MTCX (NS)
TC74VHC04FT(EL) (TOSHIBA)
TC74VHCT04AF(EL) (TOSHIBA)
TC74VHCT04AFT(EL) (TOSHIBA)

C-MOS HEX INVERTERS

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{A}$

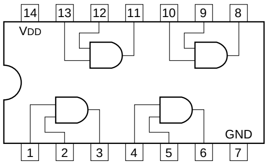
A	Y
0	1
1	0

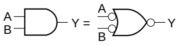
0 : LOW LEVEL
1 : HIGH LEVEL

74LCX08MTCX (NS)
SN74LV08APWR (TI)
TC74VHC08FT(EL) (TOSHIBA)
TC74VHCT08AFT(EL) (TOSHIBA)

C-MOS QUAD 2-INPUT AND GATES

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = A \cdot B = \overline{\overline{A} + \overline{B}}$

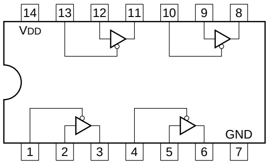
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

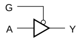
0 : LOW LEVEL
1 : HIGH LEVEL

74LCX125MTCX (NS)

C-MOS BUS BUFFER GATES WITH 3-STATE OUTPUT

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



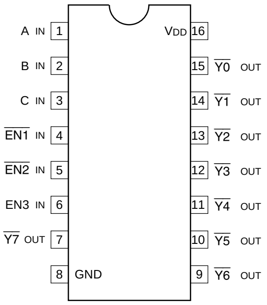
G	A	Y
0	0	0
0	1	1
1	×	HI-Z

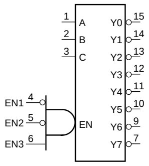
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE

74LCX138MTCX (NS)
TC74VHC138FT(EL) (TOSHIBA)

C-MOS 3-TO-8 LINE DECODER/DEMULTIPLEXER

—TOP VIEW—


A IN 1
B IN 2
C IN 3
$\overline{EN1}$ IN 4
$\overline{EN2}$ IN 5
EN3 IN 6
$\overline{Y7}$ OUT 7
8 GND
VDD 16
15 $\overline{Y0}$ OUT
14 $\overline{Y1}$ OUT
13 $\overline{Y2}$ OUT
12 $\overline{Y3}$ OUT
11 $\overline{Y4}$ OUT
10 $\overline{Y5}$ OUT
9 $\overline{Y6}$ OUT


1 A
2 B
3 C
EN1 4
EN2 5
EN3 6
EN
Y0 15
Y1 14
Y2 13
Y3 12
Y4 11
Y5 10
Y6 9
Y7 7

INPUTS				OUTPUTS							
EN	C	B	A	Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0
0	×	×	×	1	1	1	1	1	1	1	1
1	0	0	0	1	1	1	1	1	1	1	0
1	0	0	1	1	1	1	1	1	1	0	1
1	0	1	0	1	1	1	1	1	0	1	1
1	0	1	1	1	1	1	1	0	1	1	1
1	1	0	0	1	1	1	0	1	1	1	1
1	1	0	1	1	1	0	1	1	1	1	1
1	1	1	0	1	0	1	1	1	1	1	1
1	1	1	1	0	1	1	1	1	1	1	1

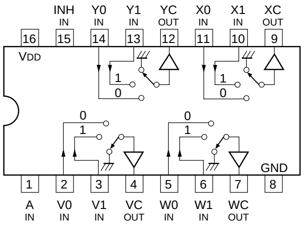
$EN = \overline{EN1} \cdot \overline{EN2} \cdot EN3$

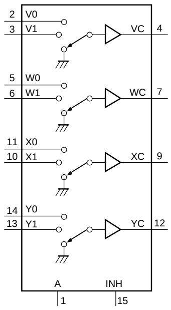
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

74LCX157MTCX (NS)
TC74VHC157FT(EL) (TOSHIBA)

C-MOS QUAD 2-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER

—TOP VIEW—


INH IN
Y0 IN
Y1 IN
YC OUT
X0 IN
X1 IN
XC OUT
16
15
14
13
12
11
10
9
VDD
1
0
1
0
0
1
0
1
GND
1
2
3
4
5
6
7
8
A IN
V0 IN
V1 IN
VC OUT
W0 IN
W1 IN
WC OUT


2 V0
3 V1
VC 4
5 W0
6 W1
WC 7
11 X0
10 X1
XC 9
14 Y0
13 Y1
YC 12
A
INH
1
15

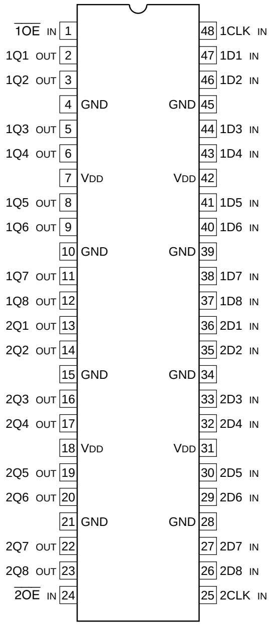
CONT. IN		ON CHANNEL
INH	A	
0	0	0
0	1	1
1	×	GND

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

74LCX16374MTDX (NS)

C-MOS 3-STATE 16-BIT D-TYPE FLIP-FLOP

—TOP VIEW—


1OE IN 1
1Q1 OUT 2
1Q2 OUT 3
4 GND
1Q3 OUT 5
1Q4 OUT 6
7 VDD
1Q5 OUT 8
1Q6 OUT 9
10 GND
1Q7 OUT 11
1Q8 OUT 12
2Q1 OUT 13
2Q2 OUT 14
15 GND
2Q3 OUT 16
2Q4 OUT 17
18 VDD
2Q5 OUT 19
2Q6 OUT 20
21 GND
2Q7 OUT 22
2Q8 OUT 23
2OE IN 24
48 1CLK IN
47 1D1 IN
46 1D2 IN
GND 45
44 1D3 IN
43 1D4 IN
VDD 42
41 1D5 IN
40 1D6 IN
GND 39
38 1D7 IN
37 1D8 IN
36 2D1 IN
35 2D2 IN
GND 34
33 2D3 IN
32 2D4 IN
VDD 31
30 2D5 IN
29 2D6 IN
GND 28
27 2D7 IN
26 2D8 IN
25 2CLK IN

INPUT

1CLK, 2CLK : CLOCK

1D1 - 1D8, 2D1 - 2D8 : DATA

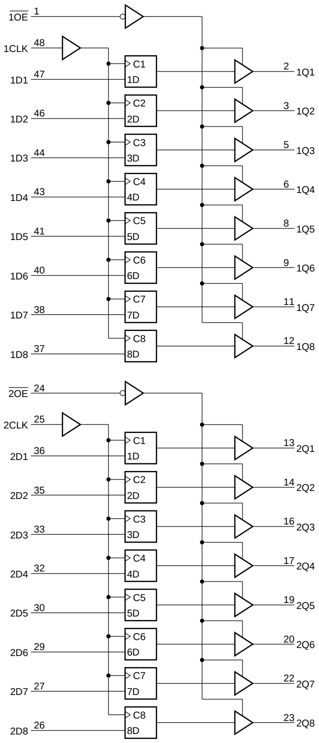
1OE, 2OE : OUTPUT ENABLE

OUTPUT

1Q1 - 1Q8, 2Q1 - 2Q8 : DATA

INPUTS			OUTPUT
$\overline{OE}$	CLK	D	Q
0	↑	1	1
0	↑	0	0
0	0	×	Qo
1	×	×	HI-Z

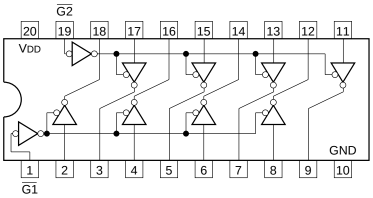
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE

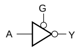

1OE 1
1CLK 48
1D1 47
1D2 46
1D3 44
1D4 43
1D5 41
1D6 40
1D7 38
1D8 37
C1 1D
C2 2D
C3 3D
C4 4D
C5 5D
C6 6D
C7 7D
C8 8D
2 1Q1
3 1Q2
5 1Q3
6 1Q4
8 1Q5
9 1Q6
11 1Q7
12 1Q8
2OE 24
2CLK 25
2D1 36
2D2 35
2D3 33
2D4 32
2D5 30
2D6 29
2D7 27
2D8 26
13 2Q1
14 2Q2
16 2Q3
17 2Q4
19 2Q5
20 2Q6
22 2Q7
23 2Q8

74LCX240MTCX (NS)

C-MOS 3-STATE INVERTER/LINE DRIVER

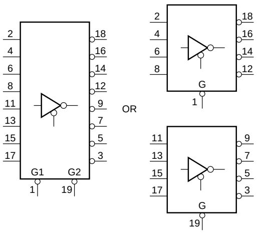
—TOP VIEW—


G2
20 19 18 17 16 15 14 13 12 11
VDD
GND
1 2 3 4 5 6 7 8 9 10
G1



G	A	Y
0	0	1
0	1	0
1	×	HI-Z

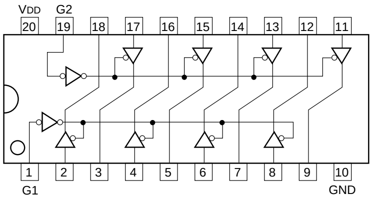
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE

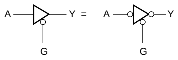

2 4 6 8 11 13 15 17
18 16 14 12 9 7 5 3
G1 G2
1 19
OR
2 4 6 8
18 16 14 12
G
1
11 13 15 17
9 7 5 3
G
19

74LCX244MTCX (NS)
TC74VHC244F (TOSHIBA)
TC74VHC244F(EL)
TC74VHC244FT(EL) (TOSHIBA)
TC74VHCT244AF(EL) (TOSHIBA)
TC74VHCT244AFT(EL) (TOSHIBA)

BUS BUFFER WITH 3-STATE OUTPUTS

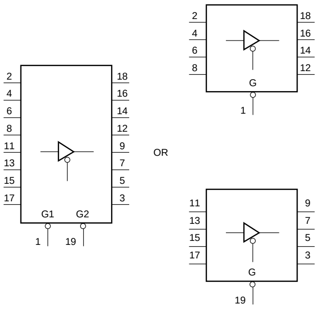
—TOP VIEW—


VDD G2
20 19 18 17 16 15 14 13 12 11
1 2 3 4 5 6 7 8 9 10
G1
GND



G	A	Y
0	0	0
0	1	1
1	×	HI-Z

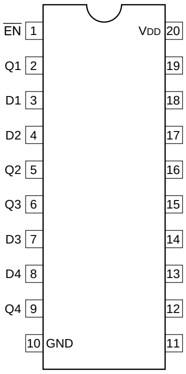
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE


2 4 6 8 11 13 15 17
18 16 14 12 9 7 5 3
G1 G2
1 19
OR
2 4 6 8
18 16 14 12
G
1
11 13 15 17
9 7 5 3
G
19

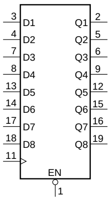
74LCX374MTCX (NS)

C-MOS 3-STATE OCTAL D-TYPE FLIP-FLOP

—TOP VIEW—



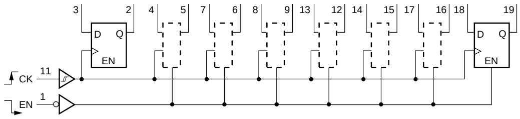
EN 1
Q1 2
D1 3
D2 4
Q2 5
Q3 6
D3 7
D4 8
Q4 9
10 GND
VDD 20
19 Q8
18 D8
17 D7
16 Q7
15 Q6
14 D6
13 D5
12 Q5
11 CK



D1
D2
D3
D4
D5
D6
D7
D8
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
EN

INPUTS			OUT
EN	D	CK	0
0	1	↑	1
0	0	↑	0
0	×	0	Q0
1	×	×	HI-Z

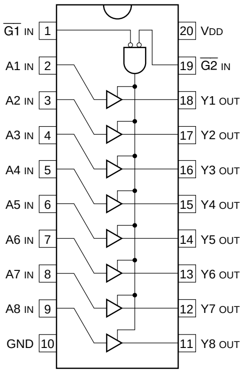
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE



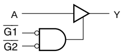
74LCX541MTCX (NS)
TC74VHC541FT(EL) (TOSHIBA)
TC74VHCT541AFT(EL) (TOSHIBA)

OCTAL BUS BUFFER WITH 3-STATE OUTPUTS

—TOP VIEW—



G1 IN 1
A1 IN 2
A2 IN 3
A3 IN 4
A4 IN 5
A5 IN 6
A6 IN 7
A7 IN 8
A8 IN 9
GND 10
20 VDD
19 G2 IN
18 Y1 OUT
17 Y2 OUT
16 Y3 OUT
15 Y4 OUT
14 Y5 OUT
13 Y6 OUT
12 Y7 OUT
11 Y8 OUT



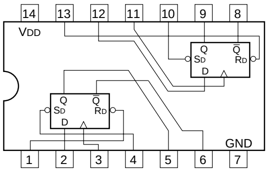
G1	G2	A	Y
0	0	0	0
0	0	1	1
1	×	×	HI-Z
×	1	×	HI-Z

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE

74LCX74MTCX (NS)
SN74HC74APW-E05 (TI)
TC74VHC74FT(EL) (TOSHIBA)
TC74VHCT74AFT(EL) (TOSHIBA)

C-MOS DUAL D-TYPE FLIP-FLOPS WITH DIRECT SET/RESET

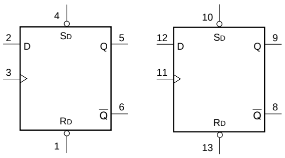
—TOP VIEW—



14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7

INPUTS				OUTPUTS	
$\overline{S_D}$	$\overline{R_D}$	CK	D	Qn+1	$\overline{Qn+1}$
0	1	×	×	1	0
1	0	×	×	0	1
0	0	×	×	1	1
1	1	↑	1	1	0
1	1	↑	0	0	1
1	1	0	×	Qn	$\overline{Qn}$

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

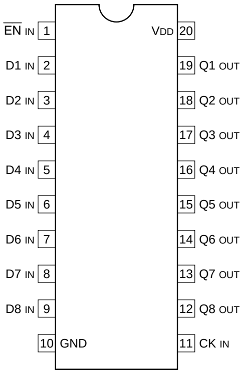


4
2
3
5
6
1
SD
RD
D
Q
10
12
11
9
8
13

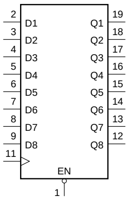
74LCX574MTCX (NS)
74VHCT574MTCX (NS)
TC74VHC574FT(EL) (TOSHIBA)

C-MOS 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP

—TOP VIEW—



EN IN 1
D1 IN 2
D2 IN 3
D3 IN 4
D4 IN 5
D5 IN 6
D6 IN 7
D7 IN 8
D8 IN 9
10 GND
VDD 20
19 Q1 OUT
18 Q2 OUT
17 Q3 OUT
16 Q4 OUT
15 Q5 OUT
14 Q6 OUT
13 Q7 OUT
12 Q8 OUT
11 CK IN

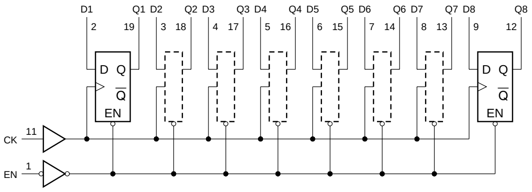


D1
D2
D3
D4
D5
D6
D7
D8
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
EN

EACH FLIP-FLOP

INPUTS			OUT
EN	CK	D	Q
0	↑	1	1
0	↑	0	0
0	↓	×	Q0
1	×	×	HI-Z

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE
Q0 : NONSTABLE

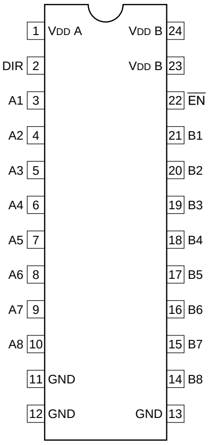


D1
Q1
D2
Q2
D3
Q3
D4
Q4
D5
Q5
D6
Q6
D7
Q7
D8
Q8
CK
EN

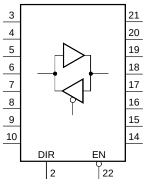
74LVX4245QSCX (NS)

C-MOS 8-BIT DUAL SUPPLY VOLTAGE TRANSLATING TRANSCEIVER

—TOP VIEW—

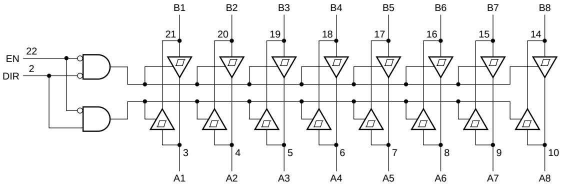


1 VDD A
DIR 2
A1 3
A2 4
A3 5
A4 6
A5 7
A6 8
A7 9
A8 10
11 GND
12 GND
VDD B 24
VDD B 23
22 EN
21 B1
20 B2
19 B3
18 B4
17 B5
16 B6
15 B7
14 B8
GND 13



EN	DIR	OUTPUT
0	0	B TO A
0	1	A TO B
1	×	HI-Z

0 : LOW LEVEL
1 : HIGH LEVEL
HI-Z : HIGH IMPEDANCE
× : DON'T CARE

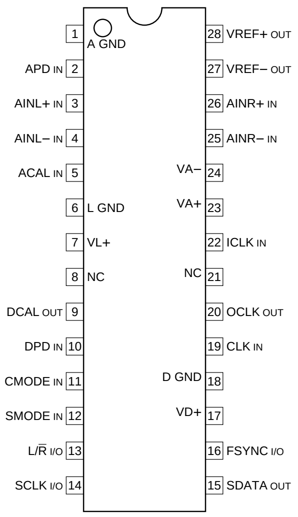


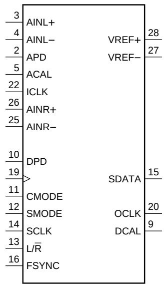
B1
B2
B3
B4
B5
B6
B7
B8
EN
DIR
A1
A2
A3
A4
A5
A6
A7
A8

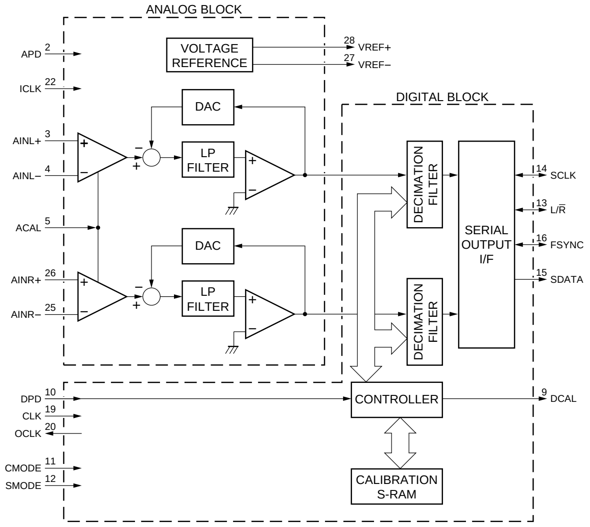
AK5390-VS (ASAHI)

18-BIT STEREO A-D CONVERTER

—TOP VIEW—


1 A GND
APD IN 2
AINL+ IN 3
AINL− IN 4
ACAL IN 5
6 L GND
7 VL+
8 NC
DCAL OUT 9
DPD IN 10
CMODE IN 11
SMODE IN 12
L/$\overline{R}$ I/O 13
SCLK I/O 14
28 VREF+ OUT
27 VREF− OUT
26 AINR+ IN
25 AINR− IN
VA− 24
VA+ 23
22 ICLK IN
NC 21
20 OCLK OUT
19 CLK IN
D GND 18
VD+ 17
16 FSYNC I/O
15 SDATA OUT


3 AINL+
4 AINL−
2 APD
5 ACAL
22 ICLK
26 AINR+
25 AINR−
10 DPD
19
11 CMODE
12 SMODE
14 SCLK
13 L/$\overline{R}$
16 FSYNC
VREF+ 28
VREF− 27
SDATA 15
OCLK 20
DCAL 9


ANALOG BLOCK
DIGITAL BLOCK
APD 2
ICLK 22
AINL+ 3
AINL− 4
ACAL 5
AINR+ 26
AINR− 25
DPD 10
CLK 19
OCLK 20
CMODE 11
SMODE 12
VOLTAGE REFERENCE
28 VREF+
27 VREF−
DAC
LP FILTER
DAC
LP FILTER
DECIMATION FILTER
DECIMATION FILTER
SERIAL OUTPUT I/F
14 SCLK
13 L/$\overline{R}$
16 FSYNC
15 SDATA
CONTROLLER
9 DCAL
CALIBRATION S-RAM

INPUT

ACAL ; ANALOG CALIBRATION
(H : AGND)
(L : ANALOG SIGNAL INPUT = AINL, AINR)
AINL + ; CAHNNEL L ANALOG POSITIVE INPUT
AINL − ; CAHNNEL L ANALOG NEGATIVE INPUT
AINR + ; CAHNNEL R ANALOG POSITIVE INPUT
AINR − ; CAHNNEL R ANALOG NEGATIVE INPUT
APD ; POWER DOWN FOR ANALOG SECTION
CLK ; MASTER CLOCK
(CMODE = H : 384fs)
(CMODE = L : 256fs)
CMODE ; MASTER CLOCK SELECT
(L : CLK = 256fs, 12.288 MHz @fs = 48 KHz)
(H : CLK = 384fs, 18.432 MHz @fs = 48 KHz)
DPD ; POWER DOWN FOR DIGITAL SECTION
ICLK ; 128fs CLOCK
SMODE ; INTERFACE CLOCK SELECT
(L : SUB MODE)
(H : MASTER MODE)

OUTPUT

DCAL ; DIGITAL CALIBRATION
OCLK ; 128fs CLOCK
SDATA ; SERIAL DATA
VREF + ; REFERENCE POSITIVE VOLTAGE (+3.68 V)
VREF − ; REFERENCE NEGATIVE VOLTAGE (−3.68 V)

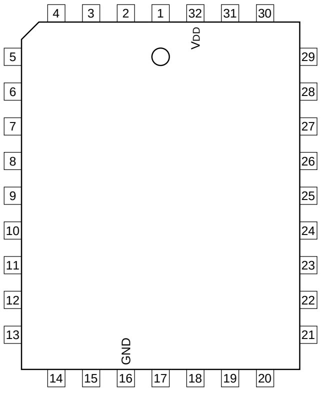
INPUT/OUTPUT

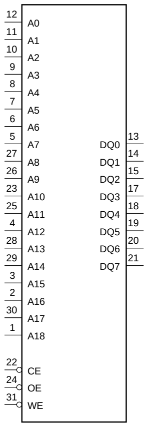
FSYNC ; FRAME SYNC CLOCK
L/$\overline{R}$; INPUT CAHNNEL SELECT
(SUB MODE : fs CLK INPUT)
(MASTER MODE : fs CLK OUTPUT)
SCLK ; SERIAL DATA CLOCK
(SUB MODE : 64fs CLK INPUT)
(MASTER MODE : 64fs CLK OUTPUT)

AM29F040B-90JC (AMD)

C-MOS 4 M (524,288 × 8)-BIT FLASH MEMORY

—TOP VIEW—


4
3
2
1
32
31
30
VDD
5
6
7
8
9
10
11
12
13
29
28
27
26
25
24
23
22
21
GND
14
15
16
17
18
19
20


12 A0
11 A1
10 A2
9 A3
8 A4
7 A5
6 A6
5 A7
27 A8
26 A9
23 A10
25 A11
4 A12
28 A13
29 A14
3 A15
2 A16
30 A17
1 A18
22 CE
24 OE
31 WE
DQ0 13
DQ1 14
DQ2 15
DQ3 17
DQ4 18
DQ5 19
DQ6 20
DQ7 21

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	A18	17	I/O	DQ3
2	I	A16	18	I/O	DQ4
3	I	A15	19	I/O	DQ5
4	I	A12	20	I/O	DQ6
5	I	A7	21	I/O	DQ7
6	I	A6	22	I	$\overline{CE}$
7	I	A5	23	I	A10
8	I	A4	24	I	$\overline{OE}$
9	I	A3	25	I	A11
10	I	A2	26	I	A9
11	I	A1	27	I	A8
12	I	A0	28	I	A13
13	I/O	DQ0	29	I	A14
14	I/O	DQ1	30	I	A17
15	I/O	DQ2	31	I	$\overline{WE}$
16	—	GND	32	—	VDD

INPUT

A0 - A18 : ADDRESS INPUTS
$\overline{CE}$: CHIP ENABLE
$\overline{OE}$: OUTPUT ENABLE
$\overline{WE}$: WRITE ENABLE

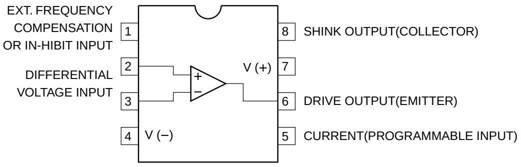
INPUT/OUTPUT

DQ0 - DQ7 : DATA INPUT/OUTPUT

CA3094M (HARRIS)

PROGRAMMABLE POWER SWITCH/AMPLIFIER

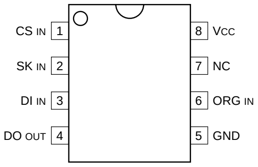
—TOP VIEW—


EXT. FREQUENCY COMPENSATION OR IN-HIBIT INPUT
1
DIFFERENTIAL VOLTAGE INPUT
2
3
+
−
4
V (−)
8
SHINK OUTPUT(COLLECTOR)
V (+)
7
6
DRIVE OUTPUT(EMITTER)
5
CURRENT(PROGRAMMABLE INPUT)

CAT93C46KI-2.5 (CATALYST)

1,024-BIT SERIAL EEPROM

—TOP VIEW—


CS IN 1
SK IN 2
DI IN 3
DO OUT 4
8 Vcc
7 NC
6 ORG IN
5 GND

INPUTS

CS : CHIP SELECT
DI : SERIAL DATA
ORG : SELECT OF BIT CONSTITUTION
SK : SERIAL DATA CLOCK

OUTPUT

DO : SERIAL DATA

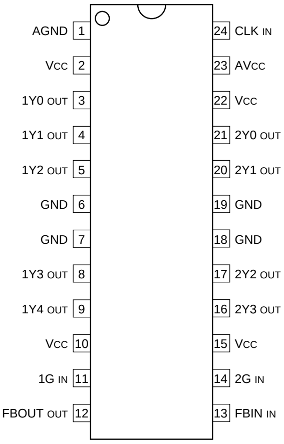
OTHER

NC : NO CONNECTION

CDC509PWR (TI)

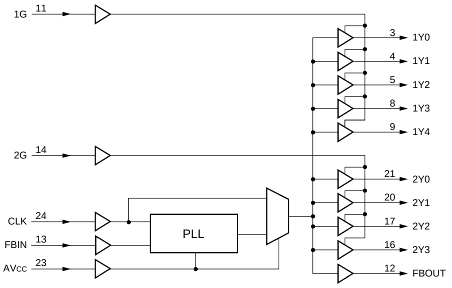
PHASE LOCK LOOP CLOCK DRIVER

—TOP VIEW—


AGND 1
Vcc 2
1Y0 OUT 3
1Y1 OUT 4
1Y2 OUT 5
GND 6
GND 7
1Y3 OUT 8
1Y4 OUT 9
Vcc 10
1G IN 11
FBOUT OUT 12
24 CLK IN
23 AVcc
22 Vcc
21 2Y0 OUT
20 2Y1 OUT
19 GND
18 GND
17 2Y2 OUT
16 2Y3 OUT
15 Vcc
14 2G IN
13 FBIN IN

INPUTS			OUTPUTS		
1G	2G	CLK	1Y	2Y	FBOUT
×	×	0	0	0	0
0	0	1	0	0	1
0	1	1	0	1	1
1	0	1	1	0	1
1	1	1	1	1	1

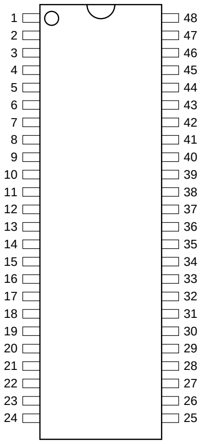
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE


1G 11
3 1Y0
4 1Y1
5 1Y2
8 1Y3
9 1Y4
2G 14
21 2Y0
20 2Y1
17 2Y2
16 2Y3
12 FBOUT
CLK 24
FBIN 13
AVcc 23
PLL

CDC516DGGR (TI)

PHASE LOCK LOOP CLOCK DRIVER

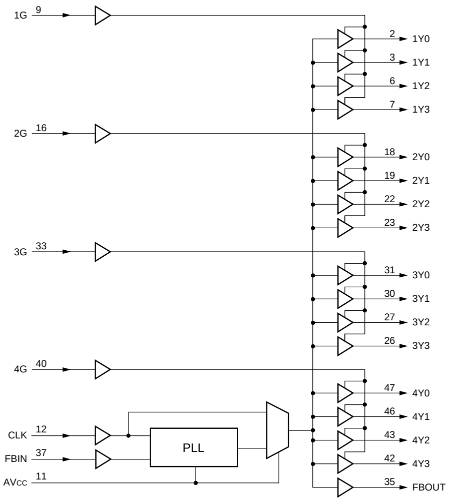
—TOP VIEW—


1 48
2 47
3 46
4 45
5 44
6 43
7 42
8 41
9 40
10 39
11 38
12 37
13 36
14 35
15 34
16 33
17 32
18 31
19 30
20 29
21 28
22 27
23 26
24 25

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	Vcc	25	—	VVcc
2	O	1Y0	26	O	3Y3
3	O	1Y1	27	O	3Y2
4	—	GND	28	—	GND
5	—	GND	29	—	GND
6	O	1Y2	30	O	3Y1
7	O	1Y3	31	O	3Y0
8	—	Vcc	32	—	Vcc
9	I	1G	33	I	3G
10	—	GND	34	—	GND
11	—	AVcc	35	O	FBOUT
12	I	CLK	36	—	AGND
13	—	AGND	37	I	FBIN
14	—	AGND	38	—	AVcc
15	—	GND	39	—	GND
16	I	2G	40	I	4G
17	—	Vcc	41	—	Vcc
18	O	2Y0	42	O	4Y3
19	O	2Y1	43	O	4Y2
20	—	GND	44	—	GND
21	—	GND	45	—	GND
22	O	2Y2	46	O	4Y1
23	O	2Y3	47	O	4Y0
24	—	Vcc	48	—	Vcc

INPUTS					OUTPUTS				
1G	2G	3G	4G	CLK	1Y	2Y	3Y	4Y	FBOUT
×	×	×	×	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	1
0	0	0	1	1	0	0	0	1	1
0	0	1	0	1	0	0	1	0	1
0	0	1	1	1	0	0	1	1	1
0	1	0	0	1	0	1	0	0	1
0	1	0	1	1	0	1	0	1	1
0	1	1	0	1	0	1	1	0	1
0	1	1	1	1	0	1	1	1	1
1	0	0	0	1	1	0	0	0	1
1	0	0	1	1	1	0	0	1	1
1	0	1	0	1	1	0	1	0	1
1	0	1	1	1	1	0	1	1	1
1	1	0	0	1	1	1	0	0	1
1	1	0	1	1	1	1	0	1	1
1	1	1	0	1	1	1	1	0	1
1	1	1	1	1	1	1	1	1	1

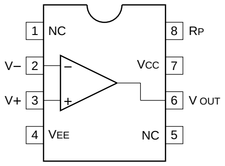
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE


1G 9
2 1Y0
3 1Y1
6 1Y2
7 1Y3
2G 16
18 2Y0
19 2Y1
22 2Y2
23 2Y3
3G 33
31 3Y0
30 3Y1
27 3Y2
26 3Y3
4G 40
47 4Y0
46 4Y1
43 4Y2
42 4Y3
35 FBOUT
CLK 12
FBIN 37
AVcc 11
PLL

CLC505AJE (COMLINEAR)
CLC505AJE-T

OPERATIONAL AMPLIFIER

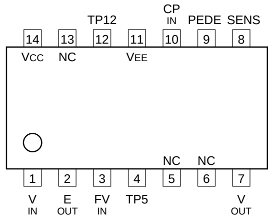
—TOP VIEW—

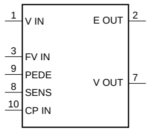

1 NC
8 RP
V− 2
VCC 7
V+ 3
6 V OUT
4 VEE
NC 5
−
+

CXA1432M (SONY)
CXA1432M-T4

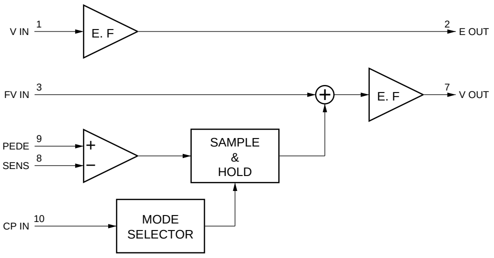
VIDEO SIGNAL CLAMPER

—TOP VIEW—


TP12
CP IN
PEDE
SENS
14
13
12
11
10
9
8
VCC
NC
VEE
NC
NC
1
2
3
4
5
6
7
V IN
E OUT
FV IN
TP5
V OUT


1 V IN
E OUT 2
3 FV IN
9 PEDE
8 SENS
10 CP IN
V OUT 7

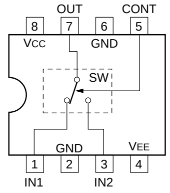
CP IN : CLAMP PULSE INPUT
E OUT : BUFFER AMP OUTPUT
FV IN : FLOATING VIDEO SIGNAL INPUT
PEDE : CLAMP LEVEL DC INPUT
SENS : CLAMP POINT SIGNAL INPUT
TP5, TP12 : FOR TEST
V IN : VIDEO SIGNAL INPUT
V OUT : VIDEO SIGNAL OUTPUT

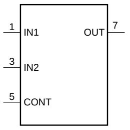

V IN 1
E. F
2 E OUT
FV IN 3
+
E. F
7 V OUT
PEDE 9
SENS 8
+
−
SAMPLE & HOLD
CP IN 10
MODE SELECTOR

CXA1450M-TH (SONY)

VIDEO SIGNAL SWITCH

—TOP VIEW—

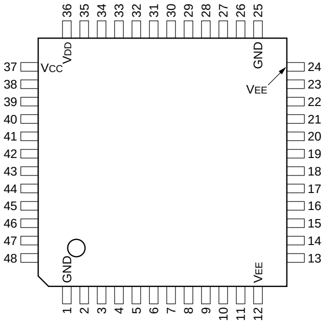

OUT
CONT
8
7
6
5
VCC
GND
SW
GND
VEE
1
2
3
4
IN1
IN2


1 IN1
OUT 7
3 IN2
5 CONT

CXA3093Q (SONY)

EQUALIZER AND PHASE-LOCKED-LOOP

—TOP VIEW—


36
35
34
33
32
31
30
29
28
27
26
25
VDD
GND
37 VCC
24
VEE
38
23
39
22
40
21
41
20
42
19
43
18
44
17
45
16
46
15
47
14
48
13
GND
VEE
1
2
3
4
5
6
7
8
9
10
11
12

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	GND	13	O	EQOY	25	—	GND	37	—	VCC
2	I	PBIX	14	O	EQOX	26	O	DTOX	38	I	PRIN
3	I	PBIY	15	O	CPOY	27	O	DTOY	39	I	PROF
4	O	REX	16	O	CPOX	28	O	TDOY	40	I/O	RREF
5	O	REY	17	I	PLLY	29	O	TDOX	41	I	AMPA
6	O	PBOY	18	I	PLLX	30	I	TDIX	42	I	BALA
7	O	PBOX	19	I	FSEL	31	I	TDIY	43	I	AMPB
8	I	OFS	20	I	FIL	32	I	VTH	44	I	BALB
9	I	EQI0	21	I	SPD	33	O	PROY	45	I	PBSW
10	I	EQI1	22	O	CKOX	34	O	PROX	46	I	EQEN
11	I	EQI2	23	O	CKOY	35	I	CTRL	47	I	AGCI
12	—	VEE	24	—	VEE	36	—	VDD	48	O	ENVO

INPUT

AGCI : AGC REFERENCE
AMPA, AMPB : EQUALIZER AMPLITUDE PARAMETER
BALA, BALB : EQUALIZER PHASE PARAMETER
CTRL : PR-IV EQUALIZER NULL FREQUENCY CONTROL
EQEN : EQUALIZER ENABLE
EQI1 - EQI2 : EQUALIZER
FIL : PLL LOOP FILTER
FSEL : PLL FREQUENCY SELECT
OFS : OFFSET
PBIX, PBIY : PRE-AMPLIFIER DIFFERENTIAL INPUT
PBSW : EQUALIZER PARAMETER CHANNEL SELECT
PLLX, PLLY : PLL DIFFERENTIAL INPUT
PRIN : PR-IV EQUALIZER
PROF : PR-IV EQUALIZER OFFSET
SPD : PLL FREE RUNNING FREQUENCY CONTROL
TDIX, TDIY : 3-LEVEL DETECTOR DIFFERENTIAL INPUT
VTH : 3-LEVEL DETECTOR THRESHOLD VOLTAGE

OUTPUT

CKOX, CKOY : CLOCK
CPOX, CPOY : ZERO CROSS COMPARATOR DIFFERENTIAL OUTPUT
DTOX, DTOY : DATA
ENVO : ENVELOPE DETECTOR
EQOX, EQOY : EQUALIZER DIFFERENTIAL OUTPUT
PBOX, PBOY : PRE-AMPLIFIER DIFFERENTIAL OUTPUT
PROX, PROY : PR-IV EQUALIZER DIFFERENTIAL OUTPUT
REX, REY : PRE-AMPLIFIER GAIN CONTROL
TDOX, TDOY : 3-LEVEL DETECTOR

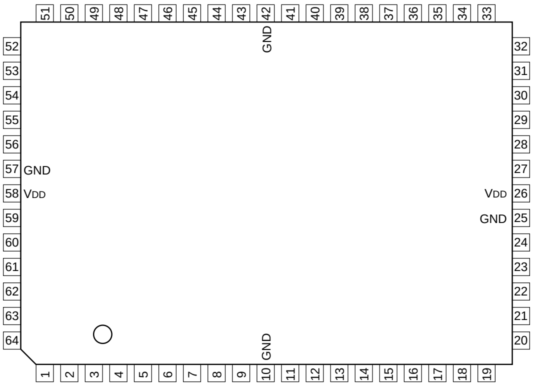
INPUT/OUTPUT

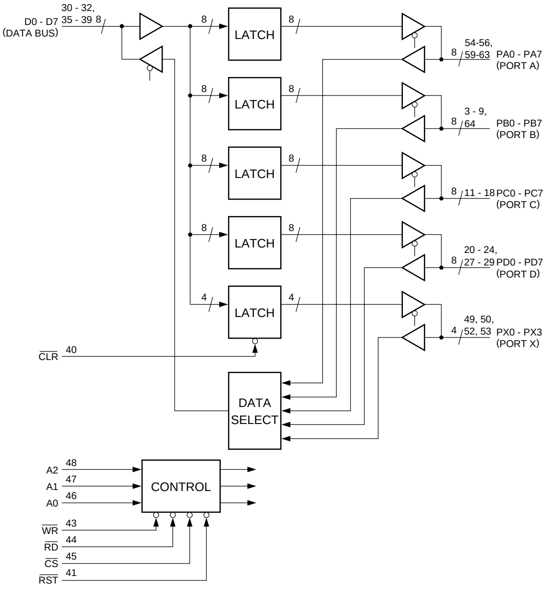
PREF : PR-IV EQUALIZER REFERENCE RESISTOR
OUTPUT/RESET INPUT

CXD1095BQ (SONY)

C-MOS I/O PORT EXPANDER

—TOP VIEW—


51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
GND
52 53 54 55 56 57 58 59 60 61 62 63 64
GND
VDD
32 31 30 29 28 27 26 25 24 23 22 21 20
VDD
GND
GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19


30 - 32,
35 - 39 8
D0 - D7
(DATA BUS)
8
LATCH
8
54-56,
59-63
PA0 - PA7
(PORT A)
3 - 9,
64
PB0 - PB7
(PORT B)
11 - 18
PC0 - PC7
(PORT C)
20 - 24,
27 - 29
PD0 - PD7
(PORT D)
4
49, 50,
52, 53
PX0 - PX3
(PORT X)
CLR
40
DATA SELECT
CONTROL
A2 48
A1 47
A0 46
WR 43
RD 44
CS 45
RST 41

PIN No.	I / O	SIGNAL	PIN No.	I / O	SIGNAL	PIN No.	I / O	SIGNAL	PIN No.	I / O	SIGNAL
1	—	NC	17	I/O	PC6	33	—	NC	49	I/O	PX0
2	—	NC	18	I/O	PC7	34	—	NC	50	I/O	PX1
3	I/O	PB1	19	—	NC	35	I/O	D3	51	—	NC
4	I/O	PB2	20	I/O	PD0	36	I/O	D4	52	I/O	PX2
5	I/O	PB3	21	I/O	PD1	37	I/O	D5	53	I/O	PX3
6	I/O	PB4	22	I/O	PD2	38	I/O	D6	54	I/O	PA0
7	I/O	PB5	23	I/O	PD3	39	I/O	D7	55	I/O	PA1
8	I/O	PB6	24	I/O	PD4	40	I	$\overline{\text{CLR}}$	56	I/O	PA2
9	I/O	PB7	25	—	GND	41	I	$\overline{\text{RST}}$	57	—	GND
10	—	GND	26	—	VDD	42	—	GND	58	—	VDD
11	I/O	PC0	27	I/O	PD5	43	I	$\overline{\text{WR}}$	59	I/O	PA3
12	I/O	PC1	28	I/O	PD6	44	I	$\overline{\text{RD}}$	60	I/O	PA4
13	I/O	PC2	29	I/O	PD7	45	I	$\overline{\text{CS}}$	61	I/O	PA5
14	I/O	PC3	30	I/O	D0	46	I	A0	62	I/O	PA6
15	I/O	PC4	31	I/O	D1	47	I	A1	63	I/O	PA7
16	I/O	PC5	32	I/O	D2	48	I	A2	64	I/O	PB0

CS	RD	WR	A2	A1	A0	MODE
0	0	1	0	0	0	PORT A → DATA BUS
0	0	1	0	0	1	PORT B → DATA BUS
0	0	1	0	1	0	PORT C → DATA BUS
0	0	1	0	1	1	PORT D → DATA BUS
0	0	1	1	0	0	PORT X → DATA BUS
0	0	1	1	0	1	———
0	0	1	1	1	0	———
0	0	1	1	1	1	———
0	1	0	0	0	0	DATA BUS → PORT A
0	1	0	0	0	1	DATA BUS → PORT B
0	1	0	0	1	0	DATA BUS → PORT C
0	1	0	0	1	1	DATA BUS → PORT D
0	1	0	1	0	0	DATA BUS → PORT X
0	1	0	1	0	1	———
0	1	0	1	1	0	DATA BUS → CTL REG. 1
0	1	0	1	1	1	DATA BUS → CTL REG. 2
1	×	×	×	×	×	DATA BUS ; HI-Z

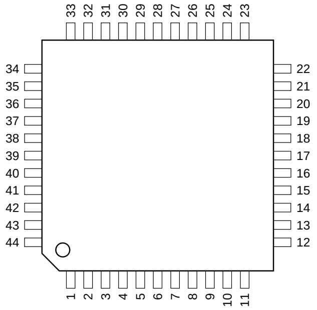
0 ; LOW LEVEL
1 ; HIGH LEVEL
× ; DON'T CARE
HI-Z ; HIGH IMPEDANCE

D0 - D7 ; DATA BUS INPUTS/OUTPUTS
$\overline{\text{CS}}$; CHIP SELECT INPUT
$\overline{\text{RD}}$; READ STROBE INPUT
$\overline{\text{WR}}$; WRITE STROBE INPUT
A0 - A2 ; ADDRESS INPUT
$\overline{\text{RST}}$; RESET INPUT
$\overline{\text{CLR}}$; CLEAR INPUT
PA0 - PA7 ; PORT A INPUTS/OUTPUTS
PB0 - PB7 ; PORT B INPUTS/OUTPUTS
PC0 - PC7 ; PORT C INPUTS/OUTPUTS
PD0 - PD7 ; PORT D INPUTS/OUTPUTS
PX0 - PX3 ; PORT X INPUTS/OUTPUTS

CXD8753Q (SONY)

MODULATION AND DEMODULATION OF MANCHESTER CODING

—TOP VIEW—

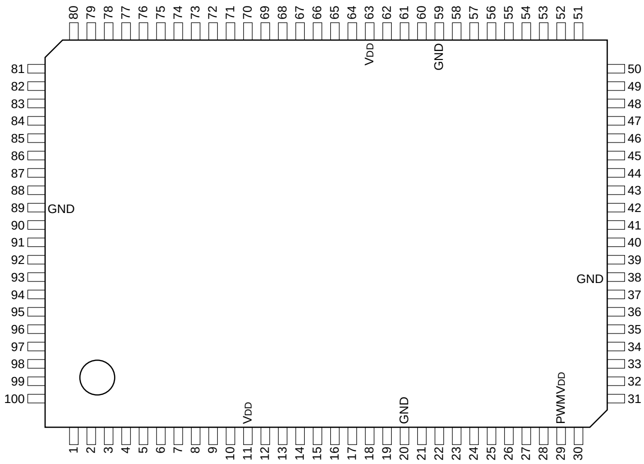

33 32 31 30 29 28 27 26 25 24 23
34 35 36 37 38 39 40 41 42 43 44
22 21 20 19 18 17 16 15 14 13 12
1 2 3 4 5 6 7 8 9 10 11

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	$\overline{\text{MM}}$	12	I	TPTDI3	23	O	CAR L	34	O	TPTDO6
2	I	TPTRE	13	I	TPTDI4	24	O	GND	35	O	TPTDO7
3	I	TPTWE	14	I/O	EXTAL	25	I	TPTDI7	36	O	BSOUT S
4	I	ANTSEL	15	I	XTAL	26	O	GND	37	O	ANT S SW
5	I	RSTZ	16	—	VCC	27	O	CAR L Z	38	—	VCC
6	—	VCC	17	—	GND	28	—	VCC	39	—	GND
7	O	SINT	18	I	TPTDI5	29	O	CAR S Z	40	I	TOTAGZ
8	I	TPTDA4	19	I	BSIN	30	O	GND	41	I	REQ
9	I	TPTDI0	20	O	ANT L SW	31	O	CAR S	42	I	SCK
10	I	TPTDI1	21	O	BSOUT L	32	O	GND	43	O	TXD
11	I	TPTDI2	22	I	TPTDI6	33	O	TPTDO5	44	I	RXD

CXD2202Q (SONY)

SERVO IC

—TOP VIEW—


VDD
GND
GND
GND
VDD
GND
PWMVDD

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	FG1/IP24	26	I/O	IOP2	51	I/O	D7	76	O	PPG11/OP21
2	I	FG0/IP23	27	I/O	IOP1	52	I/O	D6	77	O	PPG10/OP20
3	I	$\overline{\text{PBH}}$/IP22	28	I/O	IOP0	53	I/O	D5	78	O	PPG0F/OP17
4	I	$\overline{\text{SYNC1}}$/IP21	29	—	PWM VDD	54	I/O	D4	79	O	PPG0E/OP16
5	I	$\overline{\text{SYNC0}}$/IP20	30	O	PWM7/OP37	55	I/O	D3	80	O	PPG0D/OP15
6	I	FG02/IP14	31	O	PWM6/OP36	56	I/O	D2	81	O	PPG0C/OP14
7	I	FG01/IP13	32	O	PWM5/OP35	57	I/O	D1	82	O	PPG0B/OP13
8	I	FG00/IP12	33	O	PWM4/OP34	58	I/O	D0	83	O	PPG0A/OP12
9	I	CTL/IP11	34	O	PWM3/OP33	59	—	GND	84	O	PPG09/OP11
10	I	LAT/IP10	35	O	PWM2/OP32	60	I	$\overline{\text{RES}}$	85	O	PPG08/OP10
11	—	VDD	36	O	PWM1/OP31	61	I	MD1	86	O	CLKO
12	I	UD/IP07	37	O	PWM0/OP30	62	I	MD0	87	I	EXTAL
13	I	CCLK/IP06	38	—	GND	63	—	VDD	88	O	XTAL
14	I	FGC1/IP05	39	I	AS14	64	I	$\overline{\text{WR}}$	89	—	GND
15	I	FGC0/IP04	40	I	AS13	65	I	$\overline{\text{RD}}$	90	O	PPG07/OP07
16	I	FGB1/IP03	41	I	A15	66	I	$\overline{\text{CE}}$	91	O	PPG06/OP06
17	I	FGB0/IP02	42	I	A14	67	O	$\overline{\text{IREQ2}}$	92	O	PPG05/OP05
18	I	FGA1/IP01	43	I	A13	68	O	$\overline{\text{IREQ1}}$	93	O	PPG04/OP04
19	I	FGA0/IP00	44	I	A6	69	O	$\overline{\text{IREQ0}}$	94	O	PPG03/OP03
20	—	GND	45	I	A5	70	I	FXSEL	95	O	PPG02/OP02
21	I/O	IOP7	46	I	A4	71	O	OP26	96	O	PPG01/OP01
22	I/O	IOP6	47	I	A3	72	O	$\overline{\text{EXCS1}}$/OP25	97	O	PPG00/OP00
23	I/O	IOP5	48	I	A2	73	O	$\overline{\text{EXCS0}}$/OP24	98	I	FG12/IP27
24	I/O	IOP4	49	I	A1	74	O	PPG13/OP23	99	I	FG11/IP26
25	I/O	IOP3	50	I	A0	75	O	PPG12/OP22	100	I	FG10/IP25

INPUT

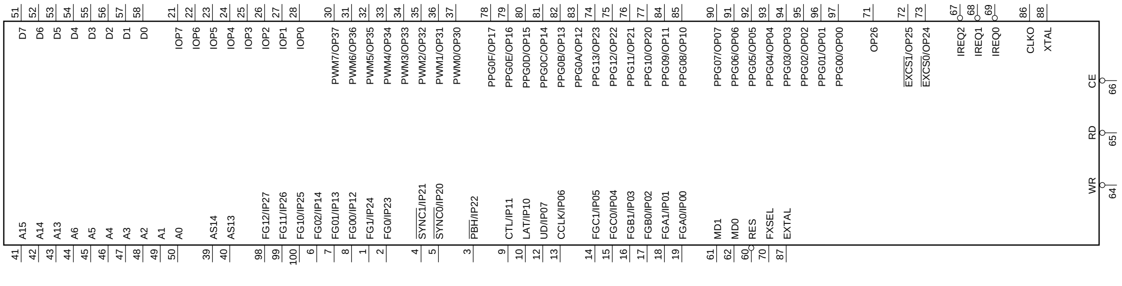
A0 - A15 ; ADDRSSS BUS
AS13, AS14 ; SELECTING CONDITION OF ADDRESS DECODER AS13 AND AS14 BITS
CCLK ; 8-BIT COUNTER CLOCK INPUT
CE ; CHIP ENABLE
CTL ; RESOLUTION 2.5MHz WITH EDGE SELECT FUNCTION.
WITH FREQUENCY DIVISION MASK TIMER
EXTAL ; CRYSTAL OSCILLATION OR EXTERNAL CLOCK INPUT
FG0 ; RESOLUTON 2.5MHz
FG00 - FG02 ; FREQUENCY DIVISION ENABLE RESOLUTION 2.5MHz.
WITH FREQUENCY DIVISION MASK TIMER
FG1 ; RESOLUTION 2.5MHz BOTH EDGES
FG10 ; EDGE SELECTION ENABLE RESOLUTION 10MHz
FG11, FG12 ; FREQUENCY DIVISION ENABLE RESOLUTION 10MHz
FGA0 ; PERFORMS FORWARD/REVERSE ROTATION DETECTION
AND 4FG COUNT (UP/DOWN) BY FGA0 AND FGA1. 10BITS. UP/DOWN IS MADE BY
CONTROLLING THE UP/DOWN OF 8-BIT COUNTER.
FGA1 ; 4FG PERFORMS FREQUENCY DIVISION AND FRC CAPTURE
THROUGH MASK TIMER.
∗1 : SELECTS ONE OF FGA0 TO FGC1 INPUT AND DETECTS
BOTH EDGES AND PERFORM THE FRC CAPTURE THROUGH
THE MASK TIMER.
FGB0 ; PERFORMS FORWARD/REVERSE ROTATION DETECTION AND 4FG COUNT
BY FGB0 AND FGB1.
FGB1 ; ∗1 : SELECTS ONE OF FGA0 TO FGC1 INPUT AND DETECTS
BOTH EDGES AND PERFORM THE FRC CAPTURE THROUGH
THE MASK TIMER.
FGC0 ; PERFORMS FORWARD/REVERSE ROTATION DETECTION AND 4FG COUNT
BY FGC0 AND FGC1.
FGC1 ; ∗1 : SELECTS ONE OF FGA0 TO FGC1 INPUT AND DETECTS
BOTH EDGES AND PERFORM THE FRC CAPTURE THROUGH
THE MASK TIMER.
FXSEL ; FREQUENCY DIVISION SELECTION CLOCK INPUT
LAT ; EXTERNAL LATCH TIMING OF UP/DOWN COUNTER
MD0, 1 ; TEST MODE DESIGNATION
PBH ; INPUT OF COMPOSITE SYNC OR H SYNC.
RESOLUTION 10MHz. WITH HALF H KILLER.
RD ; REDE
RES ; RESET
SYNC0, 1 ; INPUT OF COMPOSITE SYNC OR V SYNC. RESOLUTION 2.5MHz
UD ; 8-BIT COUNTER UP/ DOWN INPUT
WR ; WRITE

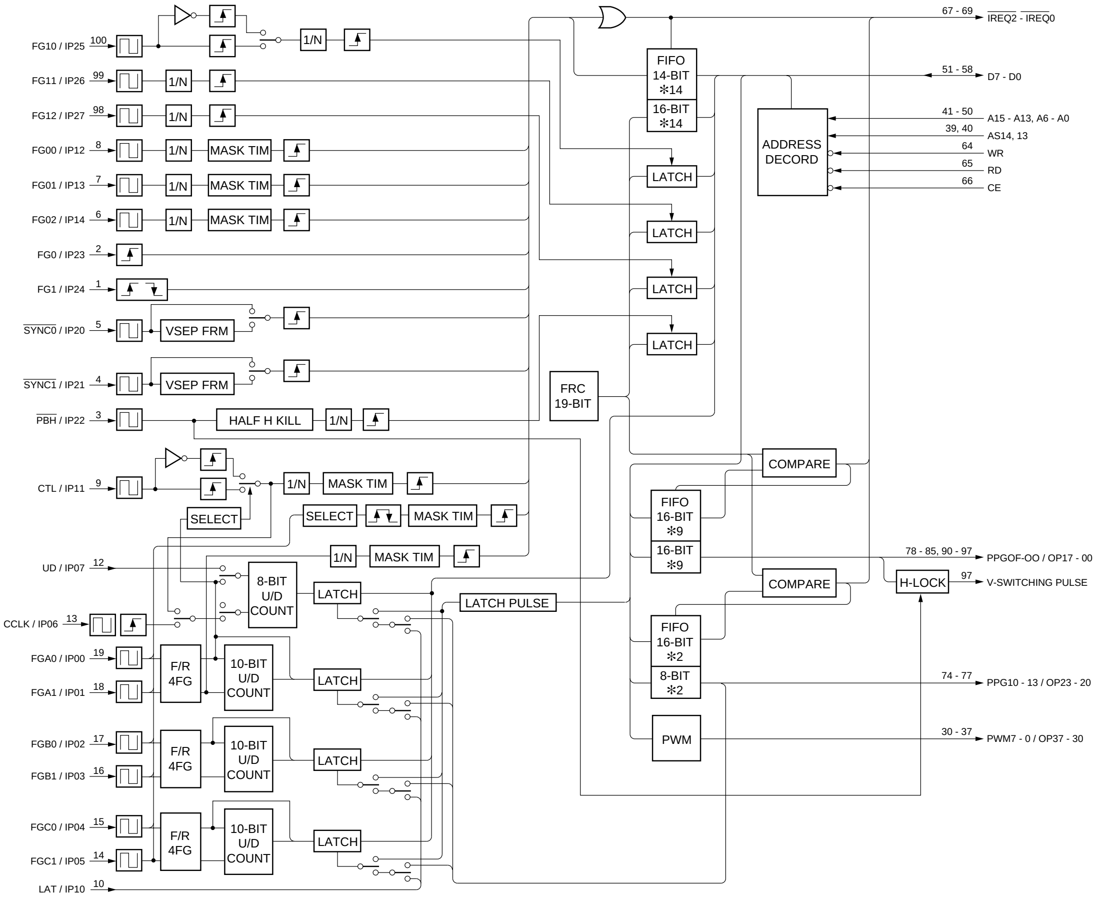
OUTPUT

CLKO ; CLOCK OUTPUT
EXCS0, 1 ; DECODE AT ADDRESS A3 LEVEL
IREQ0 ; INTERRUPTION SIGNAL OF FRC CAPTURE UNIT
IREQ1 ; COINCIDENCE INTERRUPTION OF PPG0
IREQ2 ; COINCIDENCE INTERRUPTION OF PPG1
OP26 ; EXCLUSIVELY OUTPUT PORT
PPG00 - PPG0F
PPG10 - PPG13 ; PROGRAMMABLE PULSE GENERATOR RESOLUTION 1.25MHz
PPG00 : WITH HLOCK
PWM0 - PWM5 ; PWM OUTPUT NORMALLY PWM, OR PWM0 AND PWM1, PWM2 AND PWM3,
OR PWM4 AND PWM5 OUTPUT SIGNAL CORRESPONDED TO PUSH-PULL.
PWM6, 7 ; PWM OUTPUT
XTAL ; CRYSTAL OSCILLATION

INPUT/OUTPUT

D0 - D7 ; DATA BUS
IOP0 - IOP7 ; SELECTS AND USES INPUT AND OUTPUT BY EVERY 1 BIT.

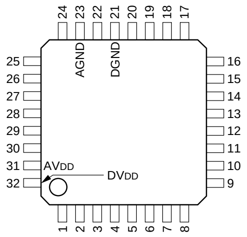

D7
D6
D5
D4
D3
D2
D1
D0
IOP7
IOP6
IOP5
IOP4
IOP3
IOP2
IOP1
IOP0
PWM7/OP37
PWM6/OP36
PWM5/OP35
PWM4/OP34
PWM3/OP33
PWM2/OP32
PWM1/OP31
PWM0/OP30
PPG0F/OP17
PPG0E/OP16
PPG0D/OP15
PPG0C/OP14
PPG0B/OP13
PPG0A/OP12
PPG13/OP23
PPG12/OP22
PPG11/OP21
PPG10/OP20
PPG09/OP11
PPG08/OP10
PPG07/OP07
PPG06/OP06
PPG05/OP05
PPG04/OP04
PPG03/OP03
PPG02/OP02
PPG01/OP01
PPG00/OP00
OP26
EXCS1/OP25
EXCS0/OP24
IREQ2
IREQ1
IREQ0
CLKO
XTAL
CE
RD
WR
A15
A14
A13
A6
A5
A4
A3
A2
A1
A0
AS14
AS13
FG12/IP27
FG11/IP26
FG10/IP25
FG02/IP14
FG01/IP13
FG00/IP12
FG1/IP24
FG0/IP23
SYNC1/IP21
SYNC0/IP20
PBH/IP22
CTL/IP11
LAT/IP10
UD/IP07
CCLK/IP06
FGC1/IP05
FGC0/IP04
FGB1/IP03
FGB0/IP02
FGA1/IP01
FGA0/IP00
MD1
MD0
RES
FXSEL
EXTAL

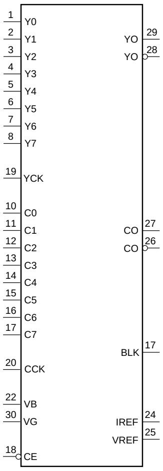

FG10 / IP25
100
FG11 / IP26
99
FG12 / IP27
98
FG00 / IP12
8
FG01 / IP13
7
FG02 / IP14
6
FG0 / IP23
2
FG1 / IP24
1
SYNC0 / IP20
5
SYNC1 / IP21
4
PBH / IP22
3
CTL / IP11
9
UD / IP07
12
CCLK / IP06
13
FGA0 / IP00
19
FGA1 / IP01
18
FGB0 / IP02
17
FGB1 / IP03
16
FGC0 / IP04
15
FGC1 / IP05
14
LAT / IP10
10
1/N
MASK TIM
VSEP FRM
HALF H KILL
SELECT
8-BIT U/D COUNT
F/R 4FG
10-BIT U/D COUNT
LATCH
LATCH PULSE
FRC 19-BIT
FIFO 14-BIT ✻14
16-BIT ✻14
ADDRESS DECORD
COMPARE
FIFO 16-BIT ✻9
16-BIT ✻9
FIFO 16-BIT ✻2
8-BIT ✻2
PWM
H-LOCK
67 - 69
IREQ2 - IREQ0
51 - 58
D7 - D0
41 - 50
A15 - A13, A6 - A0
39, 40
AS14, 13
64
WR
65
RD
66
CE
78 - 85, 90 - 97
PPGOF-OO / OP17 - 00
97
V-SWITCHING PULSE
74 - 77
PPG10 - 13 / OP23 - 20
30 - 37
PWM7 - 0 / OP37 - 30

CXD1177Q (SONY)

C-MOS Y/C 2 CHANNEL D/A CONVERTER

—TOP VIEW—


24 23 22 21 20 19 18 17
AGND
DGND
25 26 27 28 29 30 31 32
16 15 14 13 12 11 10 9
AV_{DD}
DV_{DD}
1 2 3 4 5 6 7 8


1 Y0
2 Y1
3 Y2
4 Y3
5 Y4
6 Y5
7 Y6
8 Y7
19 YCK
10 C0
11 C1
12 C2
13 C3
14 C4
15 C5
16 C6
17 C7
20 CCK
22 VB
30 VG
18 CE
YO 29
YO 28
CO 27
CO 26
BLK 17
IREF 24
VREF 25

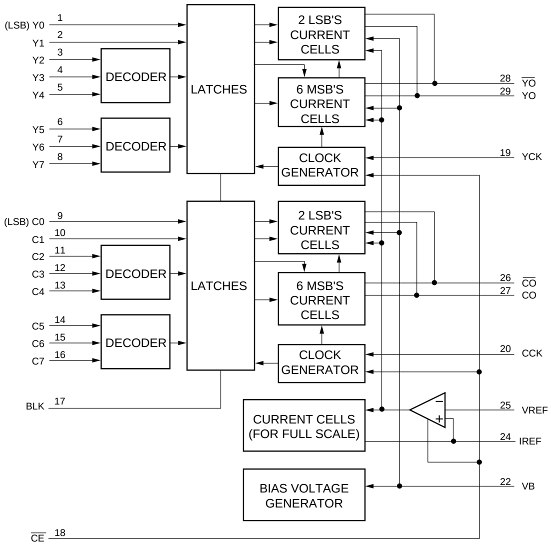
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	Y0	17	O	BLK
2	I	Y1	18	I	$\overline{CE}$
3	I	Y2	19	I	YCK
4	I	Y3	20	I	CCK
5	I	Y4	21	—	DGND
6	I	Y5	22	I	VB
7	I	Y6	23	—	AGND
8	I	Y7	24	O	IREF
9	I	C0	25	O	VREF
10	I	C1	26	O	$\overline{CO}$
11	I	C2	27	O	CO
12	I	C3	28	O	$\overline{YO}$
13	I	C4	29	O	YO
14	I	C5	30	I	VG
15	I	C6	31	—	AV_{DD}
16	I	C7	32	—	DV_{DD}

INPUT

C0 - C7 ; C DATA
CCK ; CHROMA CLOCK
$\overline{CE}$; CHIP ENABLE
VB ; BIAS VOLTAGE
VG ; GND VOLTAGE
Y0 - Y7 ; Y DATA
YCK ; LUMINANCE CLOCK

OUTPUT

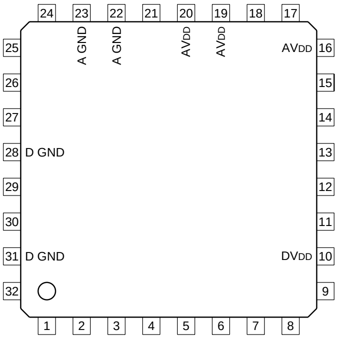
BLK ; BLANKING PULSE
CO, $\overline{CO}$; C DATA
IREF ; CURRENT REFERENCE
VREF ; VOLTAGE REFERENCE
YO, $\overline{YO}$; Y DATA

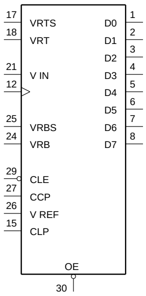

(LSB) Y0 1
Y1 2
Y2 3
Y3 4
Y4 5
Y5 6
Y6 7
Y7 8
DECODER
DECODER
LATCHES
2 LSB'S CURRENT CELLS
6 MSB'S CURRENT CELLS
CLOCK GENERATOR
28 YO
29 YO
19 YCK
(LSB) C0 9
C1 10
C2 11
C3 12
C4 13
C5 14
C6 15
C7 16
DECODER
DECODER
LATCHES
2 LSB'S CURRENT CELLS
6 MSB'S CURRENT CELLS
CLOCK GENERATOR
26 CO
27 CO
20 CCK
BLK 17
CURRENT CELLS (FOR FULL SCALE)
25 VREF
24 IREF
BIAS VOLTAGE GENERATOR
22 VB
CE 18

CXD2302Q (SONY)

C-MOS 8-BIT 50MSPS VIDEO A/D CONVERTER

—TOP VIEW—


24 23 22 21 20 19 18 17
A GND
A GND
AVDD
AVDD
25 26 27 28 29 30 31 32
D GND
D GND
AVDD 16
15 14 13 12 11
DVDD 10
9
1 2 3 4 5 6 7 8


17 VRTS
18 VRT
21 V IN
12
25 VRBS
24 VRB
29 CLE
27 CCP
26 V REF
15 CLP
D0 1
D1 2
D2 3
D3 4
D4 5
D5 6
D6 7
D7 8
OE
30

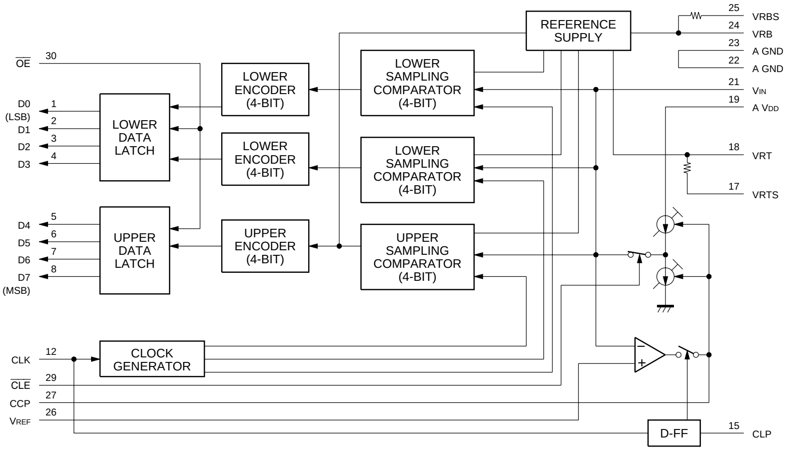
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	D0 (LSB)	17	I	VRTS
2	O	D1	18	I	VRT
3	O	D2	19	—	A V_{DD}
4	O	D3	20	—	A V_{DD}
5	O	D4	21	I	V IN
6	O	D5	22	—	A GND
7	O	D6	23	—	A GND
8	O	D7 (MSB)	24	I	VRB
9	—	TEST	25	I	VRBS
10	—	D V_{DD}	26	I	V_{REF}
11	—	TEST	27	I	CCP
12	I	CLK	28	—	D GND
13	—	NC	29	I	$\overline{CL}$
14	—	NC	30	I	$\overline{OE}$
15	I	CLP	31	—	D GND
16	—	A V_{DD}	32	—	NC

INPUT

CCP : CLAMP CONTROL VOLTAGE FOR INTEGRATOR
$\overline{CLE}$: CLAMP ENABLE
CLK : CLOCK
CLP : CLAMP PULSE
$\overline{OE}$: OUTPUT ENABLE
V IN : ANALOG
VRB : REFERENCE VOLTAGE (BOTTOM)
VRBS : SELF REFERENCE VOLTAGE SHORT TO AGND (+0.6 V/BOTTOM)
V_{REF} : VOLTAGE REFERENCE FOR CLAMP
VRT : REFERENCE VOLTAGE (TOP)
VRTS : SELF REFERENCE VOLTAGE SHORT TO AV_{DD} (+2.5 V/TOP)

OUTPUT

D0 - D7 ; DATA

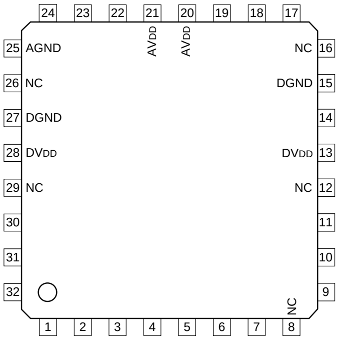

REFERENCE SUPPLY
25 VRBS
24 VRB
23 A GND
22 A GND
21 VIN
19 A VDD
18 VRT
17 VRTS
OE 30
D0 (LSB) 1
D1 2
D2 3
D3 4
LOWER DATA LATCH
LOWER ENCODER (4-BIT)
LOWER ENCODER (4-BIT)
LOWER SAMPLING COMPARATOR (4-BIT)
LOWER SAMPLING COMPARATOR (4-BIT)
D4 5
D5 6
D6 7
D7 (MSB) 8
UPPER DATA LATCH
UPPER ENCODER (4-BIT)
UPPER SAMPLING COMPARATOR (4-BIT)
CLK 12
CLOCK GENERATOR
CLE 29
CCP 27
VREF 26
D-FF
15 CLP

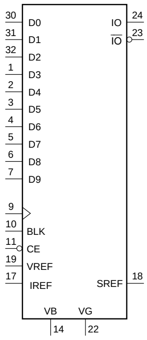
http://getMANUAL.com

CXD2306Q-T4 (SONY)
CXD2315Q (SONY)

C-MOS 10-BIT 1CH D/A CONVERTER

—TOP VIEW—


24
23
22
21
20
19
18
17
AVDD
AVDD
25 AGND
26 NC
27 DGND
28 DVDD
29 NC
30
31
32
NC 16
DGND 15
14
DVDD 13
NC 12
11
10
9
NC
1
2
3
4
5
6
7
8

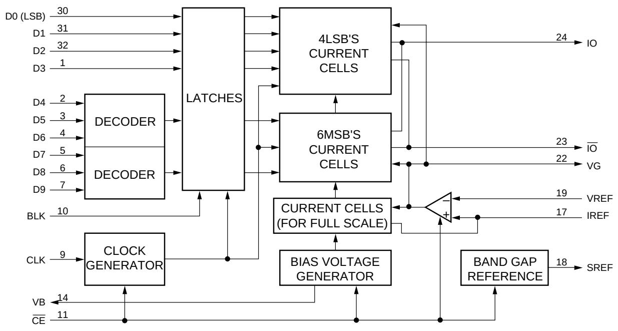

30 D0
31 D1
32 D2
1 D3
2 D4
3 D5
4 D6
5 D7
6 D8
7 D9
9
10 BLK
11 CE
19 VREF
17 IREF
IO 24
$\overline{\text{IO}}$ 23
SREF 18
VB 14
VG 22

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	D3	17	I	IREF
2	I	D4	18	O	SREF
3	I	D5	19	I	VREF
4	I	D6	20	—	AVDD
5	I	D7	21	—	AVDD
6	I	D8	22	O	VG
7	I	D9 (MSB)	23	O	$\overline{\text{IO}}$
8	—	NC	24	O	IO
9	I	CK	25	—	AGND
10	I	BLK	26	—	NC
11	I	$\overline{\text{CE}}$	27	—	DGND
12	—	NC	28	—	DVDD
13	—	DVDD	29	—	NC
14	O	VB	30	I	D0 (LSB)
15	—	DGND	31	I	D1
16	—	NC	32	I	D2

BLK : BLANKING PULSE INPUT
CE : CHIP ENABLE
CK : CLOCK INPUT
D0 - 7 : DIGITAL DATA INPUTS
IO : CURRENT OUTPUT
$\overline{\text{IO}}$: INVERT CURRENT OUTPUT
IREF : CURRENT REFERENCE INPUT
SREF : INDEPENDENT CONSTANT VOLTAGE OUTPUT
VB, VG : FOR CAPACITOR
VREF : VOLTAGE REFERENCE INPUT

MAXIMUM CONVERSION RATE

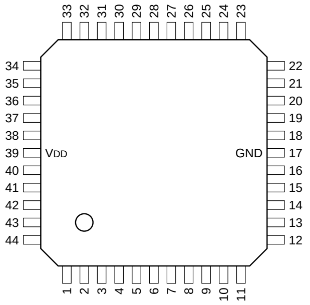
CXD2306Q	75MSPS
CXD2315Q	80MSPS


D0 (LSB) 30
D1 31
D2 32
D3 1
D4 2
D5 3
D6 4
D7 5
D8 6
D9 7
BLK 10
CLK 9
VB 14
$\overline{\text{CE}}$ 11
DECODER
DECODER
LATCHES
4LSB'S CURRENT CELLS
6MSB'S CURRENT CELLS
CURRENT CELLS (FOR FULL SCALE)
CLOCK GENERATOR
BIAS VOLTAGE GENERATOR
BAND GAP REFERENCE
24 IO
23 $\overline{\text{IO}}$
22 VG
19 VREF
17 IREF
18 SREF

CXD8344AQ (SONY)

C-MOS PULSE GENERATOR

—TOP VIEW—


33
32
31
30
29
28
27
26
25
24
23
34
35
36
37
38
39
40
41
42
43
44
VDD
GND
22
21
20
19
18
17
16
15
14
13
12
1
2
3
4
5
6
7
8
9
10
11

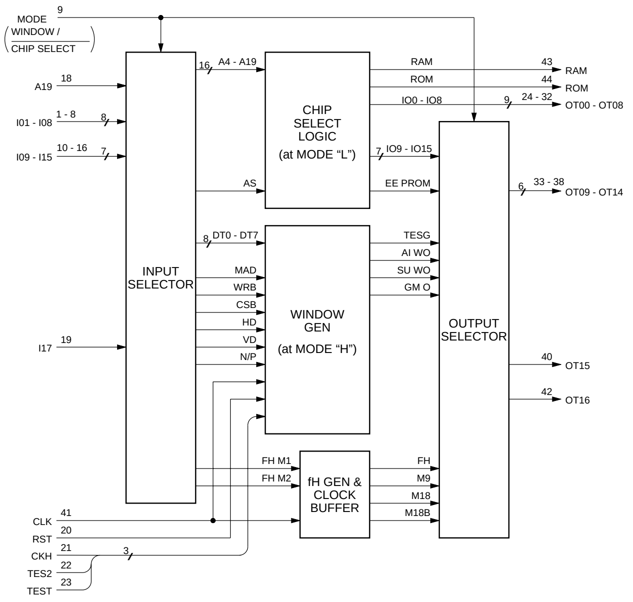
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	I01	12	I	I11	23	I	TEST	34	O	OT10
2	I	I02	13	I	I12	24	O	OT00	35	O	OT11
3	I	I03	14	I	I13	25	O	OT01	36	O	OT12
4	I	I04	15	I	I14	26	O	OT02	37	O	OT13
5	I	I05	16	I	I15	27	O	OT03	38	O	OT14
6	I	I06	17	—	GND	28	O	OT04	39	—	VDD
7	I	I07	18	I	A19	29	O	OT05	40	O	OT15
8	I	I08	19	I	I17	30	O	OT06	41	I	CLK
9	I	MODE	20	I	RST	31	O	OT07	42	O	OT16
10	I	I09	21	I	CKH	32	O	OT08	43	O	RAM
11	I	I10	22	I	TES2	33	O	OT09	44	O	ROM

INPUT

A19 : ADDRESS INPUT
CKH : FOR TEST
CLK : CLOCK
I01 - I17 : I NPUT
MODE : MODE SELECT
(H : WINDOW GEN/L : CHIP SELECT LOGIC)
RST : RESET
TES2 : FOR TEST
TEST : FOR TEST

OUTPUT

OT00 - OT16 : OUTPUT
RAM : RAM OUT
ROM : ROM OUT

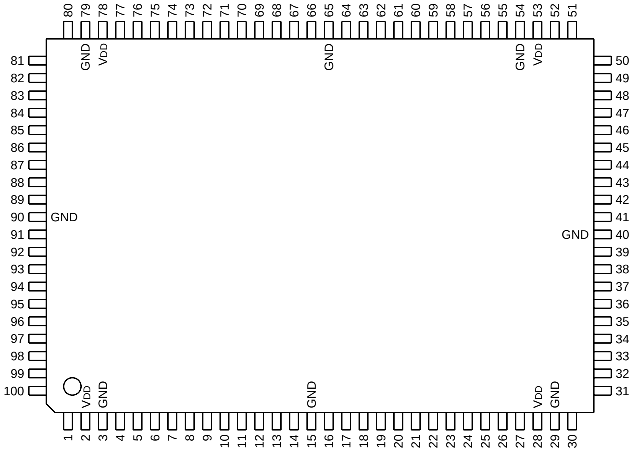

MODE
WINDOW / CHIP SELECT
9
A19 18
I01 - I08 1 - 8 8
I09 - I15 10 - 16 7
I17 19
CLK 41
RST 20
CKH 21
TES2 22
TEST 23
3
INPUT SELECTOR
16 A4 - A19
AS
8 DT0 - DT7
MAD
WRB
CSB
HD
VD
N/P
FH M1
FH M2
CHIP SELECT LOGIC
(at MODE "L")
WINDOW GEN
(at MODE "H")
fH GEN & CLOCK BUFFER
RAM
ROM
IO0 - IO8
7 IO9 - IO15
EE PROM
TESG
AI WO
SU WO
GM O
FH
M9
M18
M18B
OUTPUT SELECTOR
43 RAM
44 ROM
9 24 - 32 OT00 - OT08
6 33 - 38 OT09 - OT14
40 OT15
42 OT16

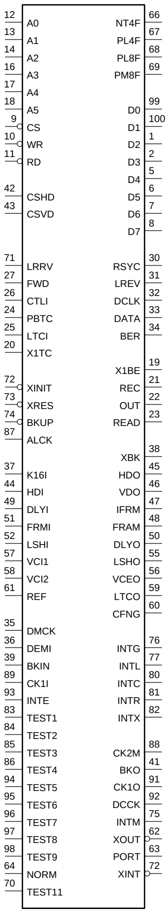
IC

CXD8384Q (SONY)

C-MOS LTC READER/GENERATOR

—TOP VIEW—


80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51
GND
VDD
GND
GND
VDD
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
GND
50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
GND
VDD
GND
GND
VDD
GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


12 A0
13 A1
14 A2
16 A3
17 A4
18 A5
9 CS
10 WR
11 RD
42 CSHD
43 CSVD
71 LRRV
27 FWD
26 CTLI
24 PBTC
25 LTCI
20 X1TC
72 XINIT
73 XRES
74 BKUP
87 ALCK
37 K16I
44 HDI
49 DLYI
51 FRMI
52 LSHI
57 VCI1
58 VCI2
61 REF
35 DMCK
36 DEMI
39 BKIN
89 CK1I
93 INTE
83 TEST1
84 TEST2
85 TEST3
86 TEST4
94 TEST5
95 TEST6
96 TEST7
97 TEST8
98 TEST9
64 NORM
70 TEST11
NT4F 66
PL4F 67
PL8F 68
PM8F 69
D0 99
D1 100
D2 1
D3 2
D4 5
D5 6
D6 7
D7 8
RSYC 30
LREV 31
DCLK 32
DATA 33
BER 34
X1BE 19
REC 21
OUT 22
READ 23
XBK 38
HDO 45
VDO 46
IFRM 47
FRAM 48
DLYO 50
LSHO 55
VCEO 56
LTCO 59
CFNG 60
INTG 76
INTL 77
INTC 80
INTR 81
INTX 82
CK2M 88
BKO 41
CK1O 91
DCCK 92
INTM 75
XOUT 62
PORT 63
XINT 72

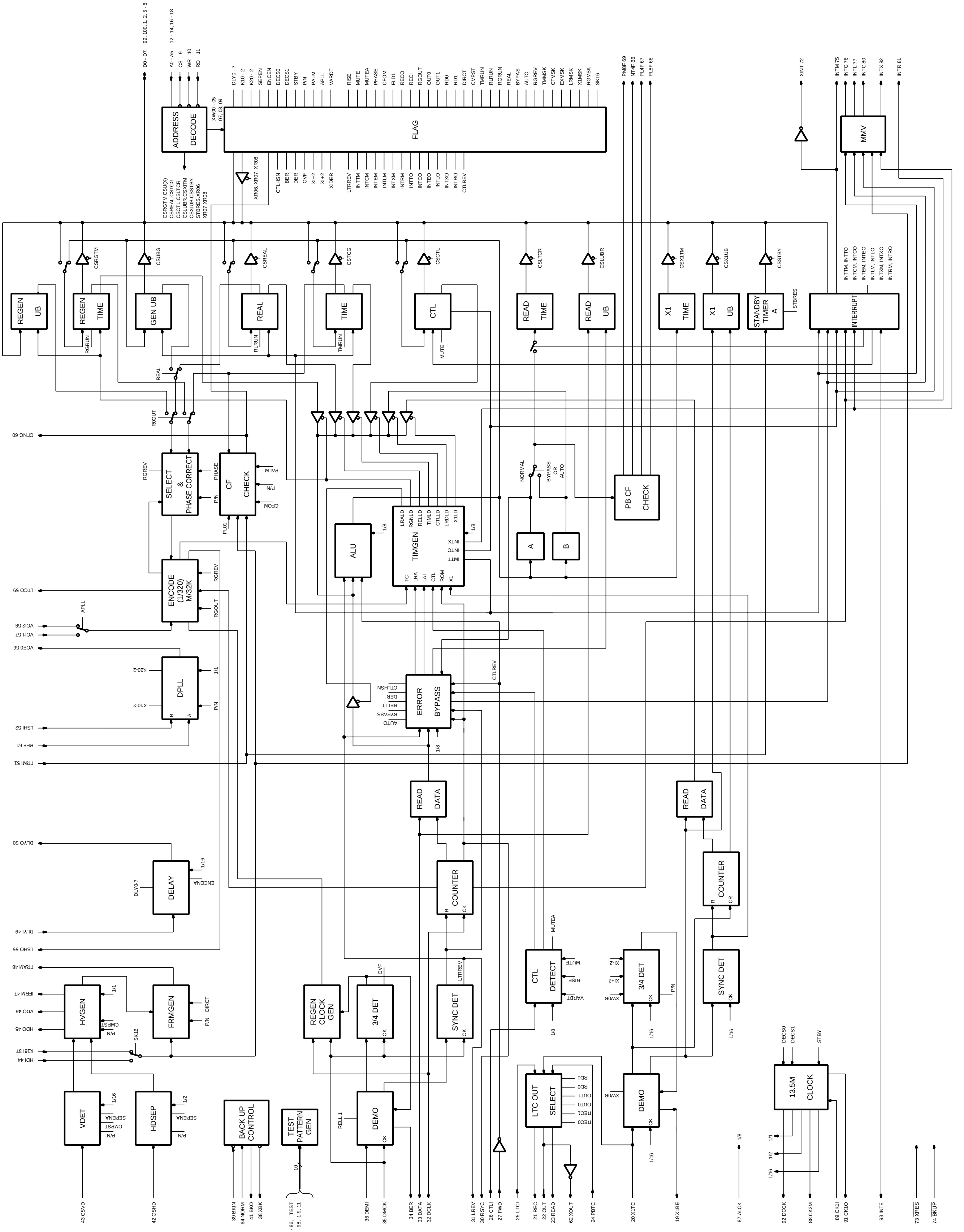
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I/O	D2	26	I	CTLI	51	I	FRMI	76	O	INTG
2	I/O	D3	27	I	FWD	52	I	LSHI	77	O	INTL
3	—	VDD	28	—	VDD	53	—	VDD	78	—	VDD
4	—	GND	29	—	GND	54	—	GND	79	—	GND
5	I/O	D4	30	O	RSYC	55	O	LSHO	80	O	INTC
6	I/O	D5	31	O	LREV	56	O	VCEO	81	O	INTR
7	I/O	D6	32	O	DCLK	57	I	VCI1	82	O	INTX
8	I/O	D7	33	O	DATA	58	I	VCI2	83	I	TEST1
9	I	$\overline{CS}$	34	O	BER	59	O	LTCO	84	I	TEST2
10	I	$\overline{WR}$	35	I	DMCK	60	O	CFNG	85	I	TEST3
11	I	$\overline{RD}$	36	I	DEMI	61	I	REF	86	I	TEST4
12	I	A0	37	I	K16I	62	O	$\overline{XOUT}$	87	I	ALCK
13	I	A1	38	O	$\overline{XBK}$	63	O	PORT	88	O	CK2M
14	I	A2	39	I	$\overline{BKIN}$	64	I	NORM	89	I	CK1I
15	—	GND	40	—	GND	65	—	GND	90	—	GND
16	I	A3	41	O	BKO	66	O	NT4F	91	O	CK1O
17	I	A4	42	I	CSHD	67	O	PL4F	92	O	DCCK
18	I	A5	43	I	CSVD	68	O	PL8F	93	I	INTE
19	O	X1BE	44	I	HDI	69	O	PM8F	94	I	TEST5
20	I	X1TC	45	O	HDO	70	I	TEST11	95	I	TEST6
21	O	REC	46	O	VDO	71	I/O	LRRV	96	I	TEST7
22	O	OUT	47	O	IFRM	72	O	$\overline{XINT}$	97	I	TEST8
23	O	READ	48	O	FRAM	73	I	$\overline{XRES}$	98	I	TEST9
24	I	PBTC	49	I	DLYI	74	I	$\overline{BKUP}$	99	I/O	D0
25	I	LTCI	50	O	DLYO	75	O	INTM	100	I/O	D1

INPUT

A0 - A5 ; ADDRESS BUS IN
ALCK ; ARITHMETIC LOGIC UNIT CLOCK IN
BKIN ; BACKUP IN (NEGATIVE LOGIC)
BKUP ; BACKUP EXECUTION IN (NEGATIVE LOGIC)
CK1I ; SYSTEM CLOCK IN
CSHD ; COMPOSITE SYNC/HD IN
CSVD ; COMPOSITE SYNC/VD IN
CTLI ; CTL SIGNAL IN
DEMI ; LONGITUDINAL TIME AND CONTROL CODE IN
DLYI ; INPUT TO DELAY CIRCUIT
DMCK ; LTC DEMODULATE CLOCK IN
FRMI ; FRAME SIGNAL IN
FWD ; CTL DIRECTION SIGNAL IN
HDI ; HORIZONTAL SYNC INPUT
INTE ; EXTERNAL INTERRUPT IN (POSITIVE LOGIC)
K16I ; 16KHz CLOCK IN
BACKUP CLOCK IN
LRRV ; DIRECTION INPUT FOR LTC READER CALCULATION
LTCI ; GENERATED LTC IN
LSHI ; LTC SYNCHRINOUS H INPUT
NORM ; NORMAL/BACKUP MODE SELECT
TEST1 - TEST9 ; TEST IN
TEST11
PBTC ; PLAYBACK LTC IN
RD ; READ IN (NEGATIVE LOGIC)
REF ; REFERENCE OF LTC GENERATOR
VCI1 ; LTC CLOCK IN-1
VCI2 ; EXTERNAL LTC IN
X1TC ; LTC CLOCK IN-2
XRES ; SYSTEM RESET IN (NEGATIVE LOGIC)
WR ; WRITE IN (NEGATIVE LOGIC)

OUTPUT

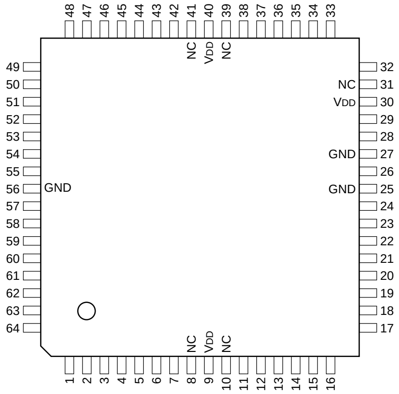
BER ; BI-PHASE MARK ERROR (BIT ERROR)
BKO ; BACKUP CONTROL OUT-2 (POSITIVE LOGIC)
CFNG ; COLOR FRAME ERROR FLAG OUT
CK1O ; SYSTEM CLOCK OUT
CK2M ; CLOCK 2M OUT
CS ; CHIP SELECT IN (NEGATIVE LOGIC)
D0 - D7 ; DATA BUS
DATA ; DEMODULATED SERIAL DATA OUT
DCCK ; LTC DECODE CLOCK OUT
DCLK ; DEMODULATED CLOCK OUT
DLYO ; OUTPUT FROM DELAY CIRCUIT
FRAM ; FRAME SIGNAL OUT -2
HDO ; HORIZONTAL SYNC DRIVE OUT
IFRM ; FRAME SIGNAL OUT -1
INTC ; CTL INTERRUPT OUT (POSITIVE LOGIC)
INTG ; GENERATOR INTERRUPT OUT (POSITIVE LOGIC)
INTL ; READER INTERRUPT -1 OUT (POSITIVE LOGIC)
INTM ; INTERRUPT MIX OUT (POSITIVE LOGIC)
INTR ; READER INTERRUPT -2 OUT (POSITIVE LOGIC)
INTX ; EXTERNAL LTC INTERRUPT OUT (POSITIVE LOGIC)
LREV ; READ REV/FWD BIT OUT
LSHO ; LTC SYNCHRONOUS SIGNAL H OUT
LTCO ; LTC SIGNAL OUT
NT4F, PL4F, ; DEMODULATED COLOR FRAME OUT
PL8F, PM8F
OUT ; EXTERNAL OUTPUT LTC OUT
PORT ; PORT
READ ; READ LTC OUT
REC ; RECORD LTC OUT
RSYC ; READ SYNC WORD DATA OUT
VCEO ; LTC CLOCK OUT
VDO ; VERTICAL SYNC DRIVE OUT
X1BE ; BI-PHASE MARK ERROR (NORMAL SPEED READER)
XBK ; BACKUP CONTROL OUT-1 (NEGATIVE LOGIC)
XINT ; INVERTED INTERRUPT MIX OUT (NEGATIVE LOGIC)
XOUT ; INVERTED EXTERNAL OUTPUT LTC OUT


ADDRESS DECODE
FLAG
MMV
REGEN UB
REGEN TIME
GEN UB
REAL
TIME
CTL
READ TIME
READ UB
X1 TIME
X1 UB
STANDBY TIMER A
INTERRUPT
SELECT & PHASE CORRECT
CF CHECK
ALU
TIMGEN
A
B
PB CF CHECK
ENCODE (1/320) M/32K
DPLL
ERROR BYPASS
READ DATA
DELAY
COUNTER
HVGEN
FRMGEN
REGEN CLOCK GEN
3/4 DET
SYNC DET
CTL DETECT
LTC OUT SELECT
DEMO
VDET
HDSEP
BACK UP CONTROL
TEST PATTERN GEN
13.5M CLOCK
D0 - D7 99, 100, 1, 2, 5 - 8
A0 - A5 12 - 14, 16 - 18
CS 9
WR 10
RD 11
XINT 72
INTM 75
INTG 76
INTL 77
INTC 80
INTX 82
INTR 81
PMBF 69
NT4F 66
PL4F 67
PL8F 68
CFNG 60
LTCO 59
VCI2 58
VCI1 57
VCE0 56
LSHI 52
REF 61
FRMI 51
DLYO 50
DLYI 49
LSHO 55
FRAM 48
IFRM 47
VDO 46
HDO 45
K16I 37
HDI 44
43 CSVD
42 CSHD
39 BKIN
64 NORM
41 BKO
38 XBK
83 - 86, 94 - 98, 1- 9, 11 70 TEST
36 DEMI
35 DMCK
34 BER
33 DATA
32 DCLK
31 LREV
30 RSYC
26 CTLI
27 FWD
25 LTCI
21 REC
22 OUT
23 READ
62 XOUT
24 PBTC
20 X1TC
19 X1BE
87 ALCK
92 DCCK
88 CK2M
89 CK1I
91 CK1O
93 INTE
73 XRES
74 BKUP

CXD8591AQ (SONY)

C-MOS SAMPLING RATE CONVERTER

—TOP VIEW—


48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
NC
VDD
NC
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64
GND
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
NC
VDD
GND
GND
NC
VDD
NC
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	DO	17	I/O	TB7	33	I/O	TB5	49	I/O	TB2
2	I	SEL	18	I	MDO0	34	I/O	TB4	50	I/O	TB1
3	O	SRDT	19	I	MDO1	35	I	MAO0	51	I	DATAI
4	I	SWDT	20	I	MUTE	36	I	MAO1	52	I	LRCKI
5	I	SCK	21	O	DATAO	37	O	ALRKO	53	I	BCKI
6	I	XLAT	22	I/O	BCKO	38	O	ABCKO	54	I	FIMCK
7	I	INIT	23	I/O	LRCKO	39	—	NC	55	O	FIMO
8	—	NC	24	I	TEST4	40	—	V_{DD}	56	—	GND
9	—	V_{DD}	25	—	GND	41	—	NC	57	I	TEST2
10	—	NC	26	I	XI	42	O	DAOR	58	I	TEST1
11	O	RBPH	27	—	GND	43	O	DAOL	59	I	FIS
12	O	STA	28	O	XO	44	I	TEST3	60	I	MI0
13	I	FRS	29	O	XOO	45	I	DEMP	61	I	MI1
14	I	FRM	30	—	V_{DD}	46	I	FS1	62	I	DI0
15	I	SLAVE	31	—	NC	47	I	FS2	63	I	DI1
16	I	TEST5	32	I/O	TB6	48	I/O	TB3	64	I/O	TB0

INPUT

BCKI : BIT CLOCK FOR THE INPUT SERIAL DATA
DATAI : SERIAL DATA
DEMP : DEEMPHASIS SETTING
DI0, DI1 : DATA
FIMCK : MASTER CLOCK FOR THE INPUT DATA SYSTEM
FIS : FIMCK DIVIDING RATIO SETTING
FRM : Fs RATIO MEASURING MODE SELECT
FRS : Fs RATIO MEASURING TIME SELECT
FS1, FS2 : Fsi FREQUENCY SELECT FOR DEEMPHASIS SETTING
INIT : INITIALIZE
LRCKI : 1 Fs WORD CLOCK FOR THE INPUT SERIAL DATA
MAO0, MAO1 : SERIAL DATA FORMAT SETTING FOR D/A OUTPUT
MDO0, MDO1 : SERIAL DATA FORMAT SETTING FOR THE STANDARD DATA OUTPUT
MI0, MI1 : INPUT SERIAL DATA FORMAT SETTING
MUTE : OUTPUT MUTING
SCK : ATTENUATION/MODE SETTING CLOCK
SEL : DATA SELECT CONTROL
SLAVE : OUTPUT SYNCHRONIZATION MODE SELECT
SWDT : ATTENUATION/MODE SETTING DATA
TEST1 - TEST5 : IC CHIP TEST
XI : CRYSTAL OSCILLATOR
XLAT : ATTENUATION/MODE SETTING DATA LATCH PULSE

OUTPUT

ABCKO : BIT CLOCK FOR D/A OUTPUT
ALRKO : WORD CLOCK FOR D/A OUTPUT
DAOL : 8 Fso/4 Fso DATA FOR L-CHANNEL D/A CONVERSION
DAOR : 8 Fso/4 Fso DATA FOR R-CHANNEL D/A CONVERSION
DATAO : STANDARD SERIAL DATA
DO : DATA
FIMO : INVERTING OUTPUT OF THE MASTER CLOCK
RBPH : RING BUFFER READ/WRITE PHASE CONTROL MONITOR
SRDT : ATTENUATION/MODE SETTING DATA
STA : Fs CONVERTING RATIO MONITOR
XO : CRYSTAL OSCILLATOR
XOO : MASTER CLOCK FOR THE OUTPUT SYSTEM

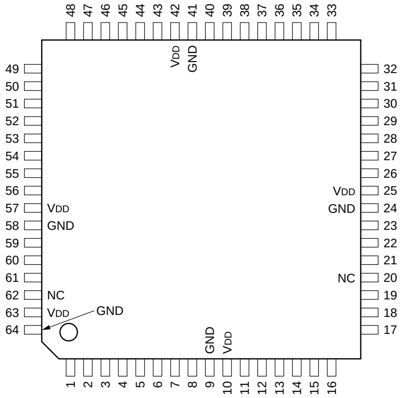
INPUT/OUTPUT

TB0 - TB7 : TEST BUS
BCKO : BIT CLOCK FOR THE STANDARD SERIAL DATA
LRCKO : WORD CLOCK FOR THE STANDARD SERIAL DATA

CXD8889R (SONY)

C-MOS SERIAL I/O

—TOP VIEW—


48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
VDD
GND
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64
VDD
GND
NC
VDD
GND
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
VDD
GND
NC
GND
VDD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I/O	D0	17	—	IC	33	—	IC	49	—	IC
2	I/O	D1	18	—	IC	34	—	IC	50	—	IC
3	I/O	D2	19	—	IC	35	—	IC	51	—	IC
4	I/O	D3	20	—	NC	36	—	IC	52	—	IC
5	I/O	D4	21	O	BCKO	37	I	SEL	53	—	IC
6	I/O	D5	22	O	IVH	38	I	RVD	54	—	IC
7	I/O	D6	23	O	TVD	39	I	RESE	55	—	IC
8	I/O	D7	24	—	GND	40	I	$\overline{\text{WR}}$	56	—	IC
9	—	GND	25	—	V_{DD}	41	—	GND	57	—	V_{DD}
10	—	V_{DD}	26	—	IC	42	—	V_{DD}	58	—	GND
11	—	IC	27	—	IC	43	I	$\overline{\text{RD}}$	59	I	BRDI
12	—	IC	28	—	IC	44	I	$\overline{\text{CS}}$	60	O	BRD0
13	—	IC	29	—	IC	45	I	CLK	61	O	BTVD
14	—	IC	30	—	IC	46	I	A2	62	—	NC
15	—	IC	31	—	IC	47	I	A1	63	—	V_{DD}
16	—	IC	32	—	IC	48	I	A0	64	—	GND

IC : INTERNAL CONNECTION (NO CONNECTION)

INPUT

A0 - A2 : ADDRESS
BRDI : BI-PHASE RECEIVE DATA
CLK : CLOCK
$\overline{\text{CS}}$: CHIP SELECT
$\overline{\text{RD}}$: READ ENABLE
RESE : RESET
RVD : SERIAL DATA
SEL : CPU INTERFACE TIMING SELECT
$\overline{\text{WR}}$: WRITE ENABLE

OUTPUT

BCKO : INTERNAL CLOCK
BRDO : DEMODULATED BI-PHASE RECEIVE DATA
BTVD : MODULATED BI-PHASE TRANSMISSION DATA
IVH : RECEIVE DATA INTERRUPT
TVD : SERIAL DATA

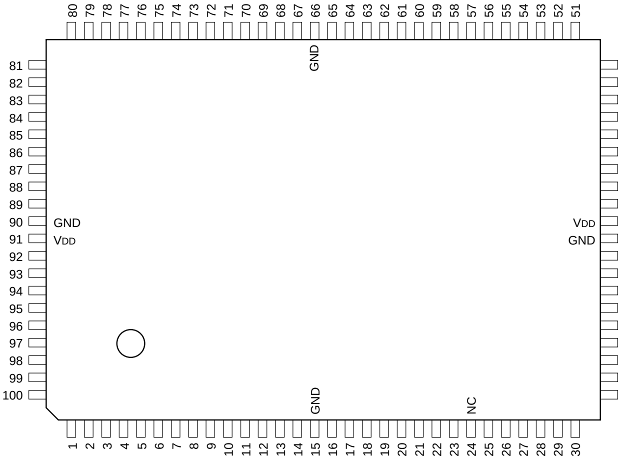
INPUT/OUTPUT

D0 - D7 : PARALLEL DATA

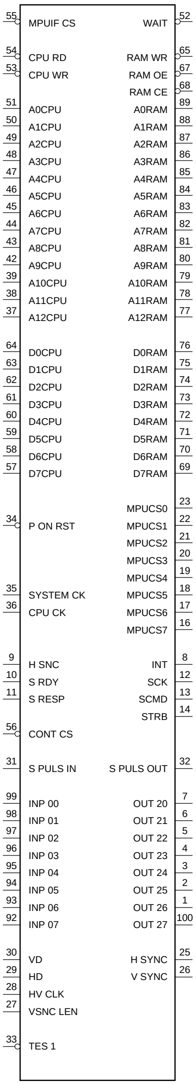
CXD8804Q (SONY)

C-MOS 8-MPU COMMUNICATION CONTROLLER WITH PARALLEL PORT

—TOP VIEW—


GND
GND
VDD
VDD
GND
GND
GND
NC
1 … 100

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	OUT26	26	O	V SYNC	51	I	A0 CPU	76	I/O	D0 RAM
2	O	OUT25	27	I	VSNC LEN	52	O	WAIT	77	O	A12 RAM
3	O	OUT24	28	I	HV CLK	53	I	CPU WR	78	O	A11 RAM
4	O	OUT23	29	I	HD	54	I	CPU RD	79	O	A10 RAM
5	O	OUT22	30	I	VD	55	I	MPUIF CS	80	O	A9 RAM
6	O	OUT21	31	I	S PULS IN	56	I	CONT CS	81	O	A8 RAM
7	O	OUT20	32	O	S PULS OUT	57	I/O	D7 CPU	82	O	A7 RAM
8	O	INT	33	I	TES 1	58	I/O	D6 CPU	83	O	A6 RAM
9	I	H SNC	34	I	P ON RST	59	I/O	D5 CPU	84	O	A5 RAM
10	I	S RDY	35	I	SYSTEM CK	60	I/O	D4 CPU	85	O	A4 RAM
11	I	S RESP	36	I	CPU CK	61	I/O	D3 CPU	86	O	A3 RAM
12	O	SCK	37	I	A12 CPU	62	I/O	D2 CPU	87	O	A2 RAM
13	O	SCMD	38	I	A11 CPU	63	I/O	D1 CPU	88	O	A1 RAM
14	O	STRB	39	I	A10 CPU	64	I/O	D0 CPU	89	O	A0 RAM
15	—	GND	40	—	GND	65	O	RAM WR	90	—	GND
16	O	MPUCS7	41	—	VDD	66	—	GND	91	—	VDD
17	O	MPUCS6	42	I	A9 CPU	67	O	RAM OE	92	I	INP 07
18	O	MPUCS5	43	I	A8 CPU	68	O	RAMCE	93	I	INP 06
19	O	MPUCS4	44	I	A7 CPU	69	I/O	D7 RAM	94	I	INP 05
20	O	MPUCS3	45	I	A6 CPU	70	I/O	D6 RAM	95	I	INP 04
21	O	MPUCS2	46	I	A5 CPU	71	I/O	D5 RAM	96	I	INP 03
22	O	MPUCS1	47	I	A4 CPU	72	I/O	D4 RAM	97	I	INP 02
23	O	MPUCS0	48	I	A3 CPU	73	I/O	D3 RAM	98	I	INP 01
24	—	N.C	49	I	A2 CPU	74	I/O	D2 RAM	99	I	INP 00
25	O	H SYNC	50	I	A1 CPU	75	I/O	D1 RAM	100	O	OUT 27


55 MPUIF CS
WAIT 52
54 CPU RD
53 CPU WR
RAM WR 65
RAM OE 67
RAM CE 68
51 A0CPU
50 A1CPU
49 A2CPU
48 A3CPU
47 A4CPU
46 A5CPU
45 A6CPU
44 A7CPU
43 A8CPU
42 A9CPU
39 A10CPU
38 A11CPU
37 A12CPU
A0RAM 89
A1RAM 88
A2RAM 87
A3RAM 86
A4RAM 85
A5RAM 84
A6RAM 83
A7RAM 82
A8RAM 81
A9RAM 80
A10RAM 79
A11RAM 78
A12RAM 77
64 D0CPU
63 D1CPU
62 D2CPU
61 D3CPU
60 D4CPU
59 D5CPU
58 D6CPU
57 D7CPU
D0RAM 76
D1RAM 75
D2RAM 74
D3RAM 73
D4RAM 72
D5RAM 71
D6RAM 70
D7RAM 69
34 P ON RST
MPUCS0 23
MPUCS1 22
MPUCS2 21
MPUCS3 20
MPUCS4 19
MPUCS5 18
MPUCS6 17
MPUCS7 16
35 SYSTEM CK
36 CPU CK
9 H SNC
10 S RDY
11 S RESP
INT 8
SCK 12
SCMD 13
STRB 14
56 CONT CS
31 S PULS IN
S PULS OUT 32
99 INP 00
98 INP 01
97 INP 02
96 INP 03
95 INP 04
94 INP 05
93 INP 06
92 INP 07
OUT 20 7
OUT 21 6
OUT 22 5
OUT 23 4
OUT 24 3
OUT 25 2
OUT 26 1
OUT 27 100
30 VD
29 HD
28 HV CLK
27 VSNC LEN
H SYNC 25
V SYNC 26
33 TES 1

INPUT

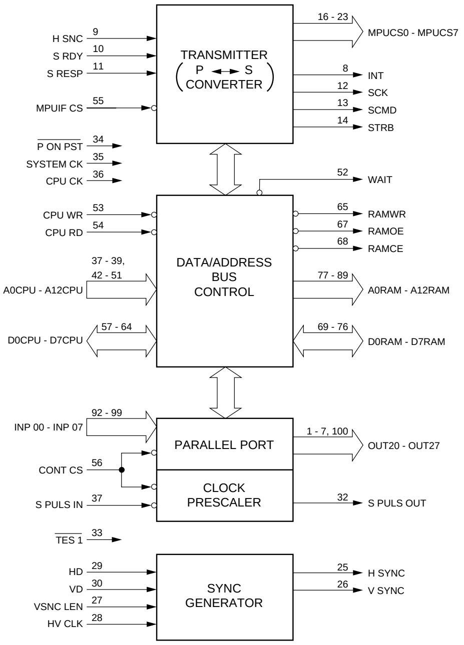
A0CPU - A12CPU ; CPU ADDRESS BUS
CONT CS ; INTERNAL/PARALLEL PORT
CPU CK ; CPU CLOCK
CPU RD ; CPU READ STROBE
CPU WR ; CPU WRITE STROBE
HD ; VIDEO HORIZONTAL SYNCHRONIZING PULSE
H SNC ; SERIAL RECEIVE WAIT
HV CLK ; VIDEO VERTICAL SAMPLING PULSE (13.5 MHz)
INP 00 - 07 ; PARALLEL PORT
MPUIF CS ; EXTERNAL RAM CHIP SELECT
P ON RST ; POWER IN RESET (L)
S PULS ; MEDIOCRITY CLOCK PULSE
S RDY ; SERIAL TRANSMISSION LEADY
S RESP ; SERIAL RECEIVE DATA
SYSTEM CK ; SYSTEM CLOCK
TES 1 ; TEST (L)
VD ; VIDEO VERTICAL SYNCHRONIZING PULSE
VSNC LEN ; VIDEO VERTICAL SYNCHRONIZING PULSE OUTPUT WIDTH CONTROL

OUTPUT

A0RAM - A12RAM ; EXTERNAL RAM ADDRESS BUS
H SYNC ; VIDEO HORIZONTAL SYNCHRONIZING PULSE
INT ; SERIAL RECEIVE END
MPUCS0 - MPUCS7 ; SERIAL CORRESPONDENCE ENABLE
OUT 20 - 27 ; PARALLEL PORT
RAM CE ; EXTERNAL RAM CHIP SELECT
RAM OE ; EXTERNAL RAM OUTPUT ENABLE
RAM WR ; EXTERNAL RAM WRITE STROBE
SCK ; SERIAL CORRESPONDENCE CLOCK
SCMD ; SERIAL TRANSMISSION DATA
S PULS ; MEDIOCRITY CLOCK PULSE FREQUENCY (1/2-1/27)
STRB ; SERIAL TRANSMISSION STROBE
V SYNC ; VIDEO VERTICAL SYNCHRONIZING PULSE
WAIT ; CPU WAIT

INPUT/OUTPUT

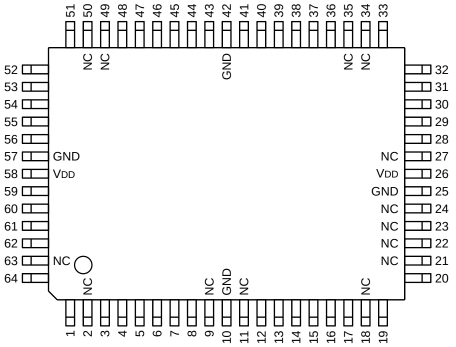
D0CPU - D7CPU ; CPU DATA BUS
D0RAM - D7RAM ; EXTERNAL RAM DATA BUS


H SNC 9
S RDY 10
S RESP 11
MPUIF CS 55
TRANSMITTER
P ◄► S
CONVERTER
16 - 23 MPUCS0 - MPUCS7
8 INT
12 SCK
13 SCMD
14 STRB
P ON PST 34
SYSTEM CK 35
CPU CK 36
52 WAIT
CPU WR 53
CPU RD 54
37 - 39, 42 - 51
A0CPU - A12CPU
57 - 64
D0CPU - D7CPU
DATA/ADDRESS BUS CONTROL
65 RAMWR
67 RAMOE
68 RAMCE
77 - 89 A0RAM - A12RAM
69 - 76 D0RAM - D7RAM
92 - 99
INP 00 - INP 07
PARALLEL PORT
1 - 7, 100 OUT20 - OUT27
CONT CS 56
S PULS IN 37
CLOCK PRESCALER
32 S PULS OUT
TES 1 33
HD 29
VD 30
VSNC LEN 27
HV CLK 28
SYNC GENERATOR
25 H SYNC
26 V SYNC

CXD8815Q (SONY)

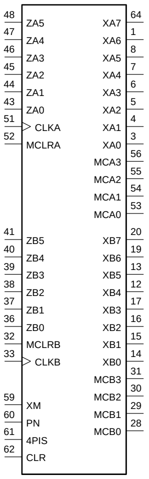
C-MOS VITERBI DECODER

—TOP VIEW—



51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
NC NC GND NC NC
52 53 54 55 56 57 58 59 60 61 62 63 64
GND
VDD
NC
32 31 30 29 28 27 26 25 24 23 22 21 20
NC VDD GND NC NC NC NC
NC NC GND NC NC
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	OUT	XA6	17	OUT	XB3	33	IN	CLKB	49	—	NC
2	—	NC	18	—	NC	34	—	NC	50	—	NC
3	OUT	XA0	19	OUT	XB6	35	—	NC	51	IN	CLKA
4	OUT	XA1	20	OUT	XB7	36	IN	ZB0	52	IN	MCLRA
5	OUT	XA2	21	—	NC	37	IN	ZB1	53	OUT	MCA0
6	OUT	XA3	22	—	NC	38	IN	ZB2	54	OUT	MCA1
7	OUT	XA4	23	—	NC	39	IN	ZB3	55	OUT	MCA2
8	OUT	XA5	24	—	NC	40	IN	ZB4	56	OUT	MCA3
9	—	NC	25	—	GND	41	IN	ZB5	57	—	GND
10	—	GND	26	—	VDD	42	—	GND	58	—	VDD
11	—	NC	27	—	NC	43	IN	ZA0	59	IN	XM
12	OUT	XB4	28	OUT	MCB0	44	IN	ZA1	60	IN	PN
13	OUT	XB5	29	OUT	MCB1	45	IN	ZA2	61	IN	4P1S
14	OUT	XB0	30	OUT	MCB2	46	IN	ZA3	62	IN	CLR
15	OUT	XB1	31	OUT	MCB3	47	IN	ZA4	63	—	NC
16	OUT	XB2	32	IN	MCLRB	48	IN	ZA5	64	OUT	XA7



48 ZA5
47 ZA4
46 ZA3
45 ZA2
44 ZA1
43 ZA0
51 CLKA
52 MCLRA
41 ZB5
40 ZB4
39 ZB3
38 ZB2
37 ZB1
36 ZB0
32 MCLRB
33 CLKB
59 XM
60 PN
61 4PIS
62 CLR
XA7 64
XA6 1
XA5 8
XA4 7
XA3 6
XA2 5
XA1 4
XA0 3
MCA3 56
MCA2 55
MCA1 54
MCA0 53
XB7 20
XB6 19
XB5 13
XB4 12
XB3 17
XB2 16
XB1 15
XB0 14
MCB3 31
MCB2 30
MCB1 29
MCB0 28

CHANNEL A

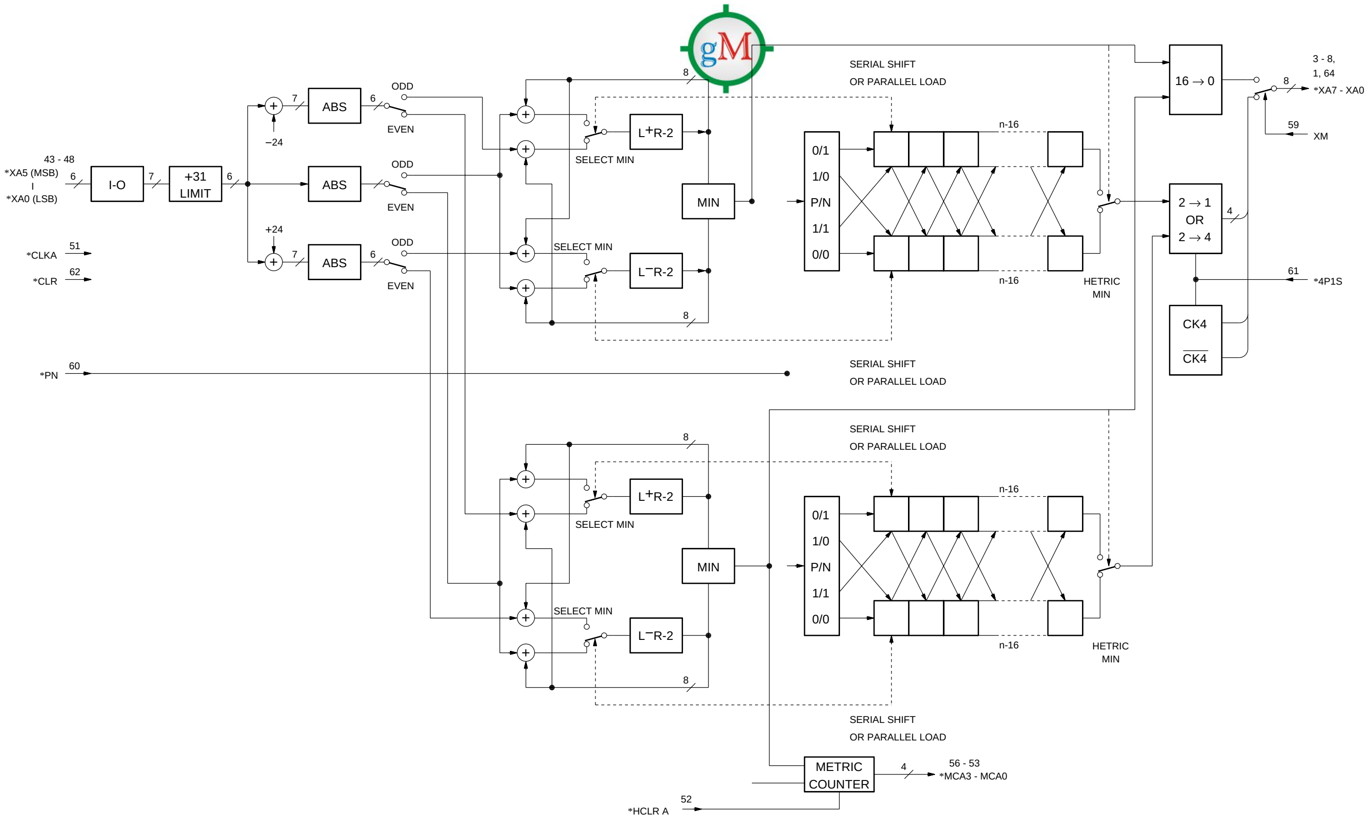
CLKA	;	CLOCK OF CHANNEL A
MCA0 - 3	;	4 BIT METRIC COUNTER OF CHANNEL A
MCLRA	;	METRIC COUNTER CLEAR OF CHANNEL A
XA0 - 7	;	8 BIT CHANNEL A OUT
ZA0 - 5	;	6 BIT CHANNEL A IN

CHANNEL B

CLKB	;	CLOCK OF CHANNEL B
MCB0 - 3	;	4 BIT METRIC COUNTER OF CHANNEL B
MCLRB	;	METRIC COUNTER CLEAR OF CHANNEL B
XB0 - 7	;	8 BIT CHANNEL B OUT
ZB0 - 5	;	6 BIT CHANNEL B IN

OTHERS

CLR	;	ALL CLEAR
PN	;	SELECTOR OF PR (1, 0, -1) & NRZ
XM	;	SELECTOR OF DECODE & METRIC OUT
4PIS	;	SELECTOR OF 4 PARALLEL & SERIAL DATA



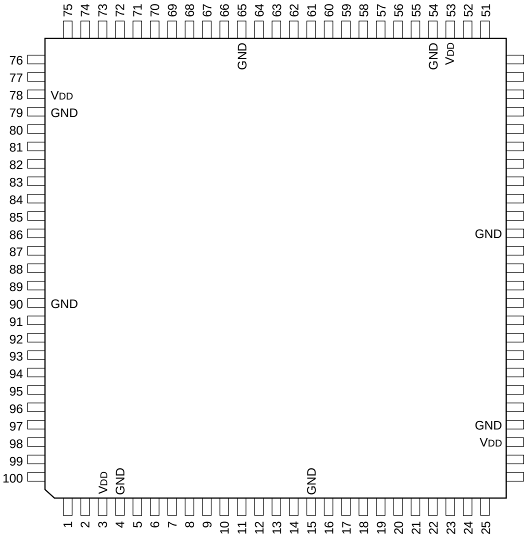
43 - 48
*XA5 (MSB)
*XA0 (LSB)
6
I-O
7
+31 LIMIT
6
−24
+24
7
ABS
6
ODD
EVEN
SELECT MIN
L+R-2
L−R-2
MIN
8
SERIAL SHIFT OR PARALLEL LOAD
0/1
1/0
P/N
1/1
0/0
n-16
HETRIC MIN
16 → 0
3 - 8, 1, 64
*XA7 - XA0
59
XM
2 → 1 OR 2 → 4
4
61
*4P1S
CK4
CK4
51 *CLKA
62 *CLR
60 *PN
METRIC COUNTER
4
56 - 53
*MCA3 - MCA0
52
*HCLR A

* ; B channel BLOCK is the same as A channel BLOCK

CXD8820AR (SONY)

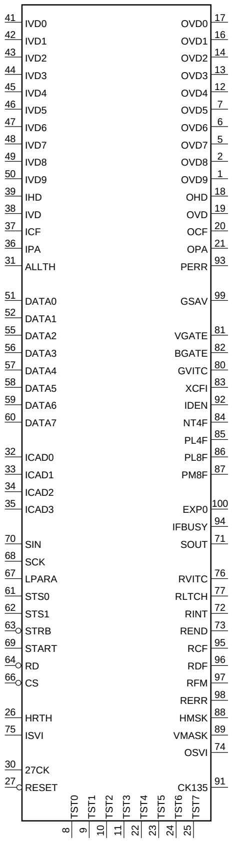
C-MOS VITC READER GENERATOR

—TOP VIEW—



75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51
GND
GND
VDD
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
VDD
GND
GND
50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26
GND
GND
VDD
VDD
GND
GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	OVD9	26	I	HRTH	51	I/O	DATA0	76	O	RVITC
2	O	OVD8	27	I	$\overline{\text{RESET}}$	52	I/O	DATA1	77	O	RLTCH
3	—	VDD	28	—	VDD	53	—	VDD	78	—	VDD
4	—	GND	29	—	GND	54	—	GND	79	—	GND
5	O	OVD7	30	I	27CK	55	I/O	DATA2	80	O	GVITC
6	O	OVD6	31	I	ALLTH	56	I/O	DATA3	81	O	VGATE
7	O	OVD5	32	I	ICAD0	57	I/O	DATA4	82	O	BGATE
8	I	TST0	33	I	ICAD1	58	I/O	DATA5	83	O	XCFI
9	I	TST1	34	I	ICAD2	59	I/O	DATA6	84	O	NT4F
10	I	TST2	35	I	ICAD3	60	I/O	DATA7	85	O	PL4F
11	I	TST3	36	I	IPA	61	I	STS0	86	O	PL8F
12	O	OVD4	37	I	ICF	62	I	STS1	87	O	PM8F
13	O	OVD3	38	I	IVD	63	I	$\overline{\text{STRB}}$	88	O	HMSK
14	O	OVD2	39	I	IHD	64	I	$\overline{\text{RD}}$	89	O	VMASK
15	—	GND	40	—	GND	65	—	GND	90	—	GND
16	O	OVD1	41	I	IVD0	66	I	$\overline{\text{CS}}$	91	O	CK135
17	O	OVD0	42	I	IVD1	67	I	LPARA	92	O	IDEN
18	O	OHD	43	I	IVD2	68	I	SCK	93	O	PERR
19	O	OVD	44	I	IVD3	69	I	START	94	O	IFBUSY
20	O	OCF	45	I	IVD4	70	I	SIN	95	O	RCF
21	O	OPA	46	I	IVD5	71	O	SOUT	96	O	RDF
22	I	TST4	47	I	IVD6	72	O	RINT	97	O	RFM
23	I	TST5	48	I	IVD7	73	O	REND	98	O	RERR
24	I	TST6	49	I	IVD8	74	O	OSVI	99	O	G SAV
25	I	TST7	50	I	IVD9	75	I	ISVI	100	O	EXP0



41 IVD0
42 IVD1
43 IVD2
44 IVD3
45 IVD4
46 IVD5
47 IVD6
48 IVD7
49 IVD8
50 IVD9
39 IHD
38 IVD
37 ICF
36 IPA
31 ALLTH
51 DATA0
52 DATA1
55 DATA2
56 DATA3
57 DATA4
58 DATA5
59 DATA6
60 DATA7
32 ICAD0
33 ICAD1
34 ICAD2
35 ICAD3
70 SIN
68 SCK
67 LPARA
61 STS0
62 STS1
63 STRB
69 START
64 RD
66 CS
26 HRTH
75 ISVI
30 27CK
27 RESET
OVD0 17
OVD1 16
OVD2 14
OVD3 13
OVD4 12
OVD5 7
OVD6 6
OVD7 5
OVD8 2
OVD9 1
OHD 18
OVD 19
OCF 20
OPA 21
PERR 93
GSAV 99
VGATE 81
BGATE 82
GVITC 80
XCFI 83
IDEN 92
NT4F 84
PL4F 85
PL8F 86
PM8F 87
EXP0 100
IFBUSY 94
SOUT 71
RVITC 76
RLTCH 77
RINT 72
REND 73
RCF 95
RDF 96
RFM 97
RERR 98
HMSK 88
VMASK 89
OSVI 74
CK135 91
TST0 8
TST1 9
TST2 10
TST3 11
TST4 22
TST5 23
TST6 24
TST7 25

INPUT

27CK : 27 MHz CLOCK
ALLTH : ALL THOUGH MODE
CS : CHIP SELECT
(FOR PARALLEL INTERFACE)
HRTH : READER THOUGH MODE
ICAD0 - ICAD3 : IC ADDRESS
ICF : COLOR FRAMING
IHD : HD
IPA : PARITY
ISVI : SLICED VITC
IVD0 - IVD9 : VIDEO DATA
IVD : VD
LPARA : PARARELL INTERFACE SELECT
RD : READ (FOR PARALLEL INTERFACE)
RESET : POWER ON RESET
SCK : SERIAL INTERFACE CLOCK
SIN : SERIAL DATA
START : SERIAL INTERFACE START
STRB : STROBE
(FOR PARALLEL INTERFACE)
STS0, STS1 : STATUS 0, 1
(FOR PARALLEL INTERFACE)
TST0 - TST7 : FOR TEST 0-7

OUTPUT

BGATE : BLANKING LINE PULSE
CK135 : 13.5 MHz CLOCK
EXP0 : EXPANDED OUTPUT PORT
GSAV : (G) SAV PULSE
GVITC : GNENRATED VITC
HMSK : (R) VITC SEARCH LINE
IDEN : IC INTERFACE ENABLE
IFBUSY : INTERFACE BUSY
NT4F : NTSC 4FIELD
OCF : COLOR FRAMING
OHD : HD
OPA : PARITY
OSVI : SLICED VITC
OVD0 - OVD9 : VIDEO DATA
OVD : VD
PERR : PARITY ERROR
PL4F : PAL 4FIELD
PL8F : PAL 8FIELD
PM8M : PALM 8FIELD
RCF : READ COLOR FRAME BIT
RDF : READ DROP FRAME BIT
REND : READ END
RERR : READ ERROR SIGNAL
RFM : READ FEILD MARK BIT
RINT : READ END INTERRUPT
RLTCH : READ VITC LATCH PULSE
RVITC : READ VITC
SOUT : SERIAL DATA
VGATE : INSERT LINE PULSE
VMASK : (R) EAV_SAV MASK PULSE
XCFI : COLOR FRAMING INFORMATION

INPUT/OUTPUT

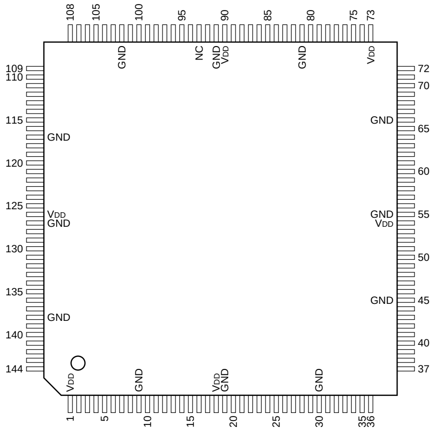
DATA0 - DATA7 : PARARELL INTERFACE DATA BUS

IC

CXD9000CR (SONY)

C-MOS HD-SDI COPROCESSOR

—TOP VIEW—

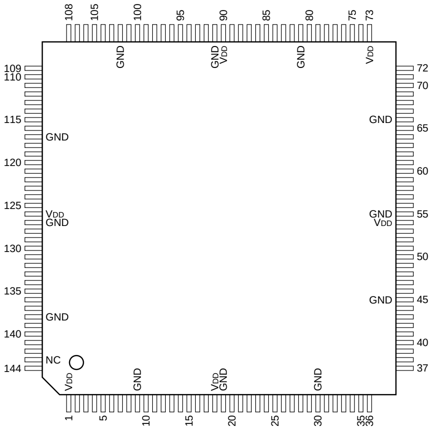


PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	V_{DD}	37	—	NC	73	—	V_{DD}	109	—	NC
2	I	IP AUDA12	38	O	OP AUEFLG	74	O	OP MYFLG1	110	I	IP YDATA0
3	I	IP AUDA34	39	O	OP YADFLG	75	O	OP MYFLG2	111	I	IP YDATA1
4	I	IP AUDA56	40	O	OP CADFLG	76	O	OP MYFLG3	112	I	IP YDATA2
5	I	IP AUDA78	41	—	NC	77	O	OP MYFLG4	113	I	IP YDATA3
6	I	IP CKAUA	42	O	OP CK74	78	O	OP MYFLG5	114	I	IP YDATA4
7	I	IP FSA	43	O	OP EXTV	79	I	IP RESET	115	I	IP YDATA5
8	I	IP CKAUB	44	O	OP EXTH	80	—	NC	116	I	IP YDATA6
9	—	GND	45	—	GND	81	—	GND	117	—	GND
10	I	IP FSB	46	O	OP EXTF	82	—	NC	118	I	IP YDATA7
11	—	NC	47	O	OP CDATA10	83	—	NC	119	I	IP YDATA8
12	—	NC	48	O	OP CDATA9	84	—	NC	120	I	IP YDATA9
13	—	NC	49	O	OP CDATA8	85	—	NC	121	I	IP YDATA10
14	—	NC	50	O	OP CDATA7	86	—	NC	122	I	IP CDATA0
15	—	NC	51	O	OP CDATA6	87	—	NC	123	I	IP CDATA1
16	—	NC	52	O	OP CDATA5	88	—	NC	124	I	IP CDATA2
17	—	NC	53	O	OP CDATA4	89	O	OP SYRW	125	I	IP CDATA3
18	—	V_{DD}	54	—	V_{DD}	90	—	V_{DD}	126	—	V_{DD}
19	—	GND	55	—	GND	91	—	GND	127	—	GND
20	O	OP AUCKPH1	56	O	OP CDATA3	92	I	IP SYRW	128	I	IP CDATA4
21	O	OP AUCKPH2	57	O	OP CDATA2	93	—	NC	129	I	IP CDATA5
22	O	OP AUEFLG12	58	O	OP CDATA1	94	I	IP XMM	130	I	IP CDATA6
23	O	OP AUEFLG34	59	O	OP CDATA0	95	I	IP SYCS	131	I	IP CDATA7
24	O	OP AUEFLG56	60	O	OP YDATA10	96	I	IP SYCK	132	I	IP CDATA8
25	O	OP AUEFLG78	61	O	OP YDATA9	97	I	IP SYSTA1	133	I	IP CDATA9
26	O	OP AUDA12	62	O	OP YDATA8	98	I	IP SYSTA0	134	I	IP CDATA10
27	O	OP AUDA34	63	O	OP YDATA7	99	I/O	BP SYIF7	135	I	IP EXTF
28	O	OP AUDA56	64	O	OP YDATA6	100	I/O	BP SYIF6	136	I	IP EXTH
29	O	OP AUDA78	65	O	OP YDATA5	101	I/O	BP SYIF5	137	—	NC
30	—	GND	66	—	GND	102	—	GND	138	—	GND
31	—	NC	67	O	OP YDATA4	103	I/O	BP SYIF4	139	I	IP CK74
32	—	NC	68	O	OP YDATA3	104	I/O	BP SYIF3	140	—	NC
33	—	NC	69	O	OP YDATA2	105	I/O	BP SYIF2	141	—	NC
34	—	NC	70	O	OP YDATA1	106	I/O	BP SYIF1	142	—	NC
35	—	NC	71	O	OP YDATA0	107	I/O	BP SYIF0	143	—	NC
36	—	NC	72	—	NC	108	—	NC	144	O	OP ERR

CXD9013AR (SONY)

C-MOS TIMING GENERATOR

—TOP VIEW—

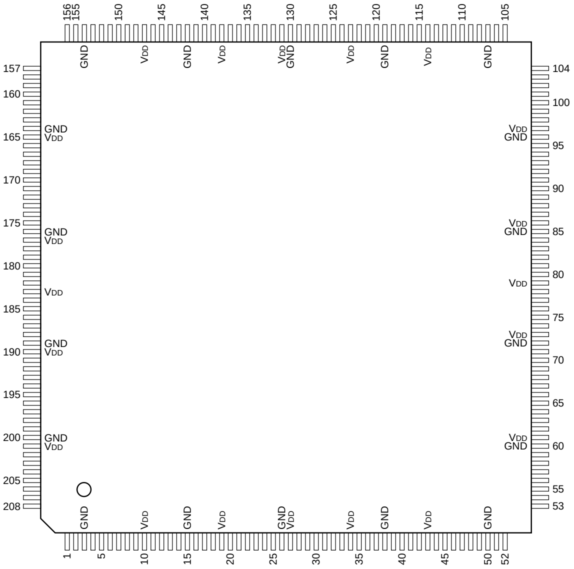


PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	V_{DD}	37	O	OP FS512 479K	73	—	V_{DD}	109	O	OP VARDADT 2
2	I	IP SYCS	38	O	OP AUDFRM	74	O	OP H1125 5	110	O	OP VARDADT 3
3	I	IP SYSTRB	39	O	OP CFINF	75	O	OP F1125 5	111	O	OP VARDADT 4
4	I	IP SYSTAT 0	40	O	OP CFRM0	76	O	OP H1125 6	112	O	OP VARDADT 5
5	I	IP SYSTAT 1	41	O	OP CFRM1	77	O	OP F1125 6	113	O	OP VARDADT 6
6	I/O	BP SYSIO 0	42	O	OP H525 0	78	O	OP CKO 46M	114	O	OP VARDADT 7
7	I/O	BP SYSIO 1	43	O	OP V525 0	79	I	IP TEST4	115	O	OP VARDADT 8
8	I/O	BP SYSIO 2	44	O	OP F525 0	80	O	OP LOCK 46	116	O	OP VARDADT 9
9	—	GND	45	—	GND	81	—	GND	117	—	GND
10	I/O	BP SYSIO 3	46	O	OP CKO 27M	82	O	OP CKO 56M	118	I	IP SDI F
11	I/O	BP SYSIO 4	47	O	OP CKO 13M	83	I	IP TEST5	119	I	IP SDI V
12	I/O	BP SYSIO 5	48	O	OV$_{SS}$ 3	84	O	OP LOCK 56	120	I	IP SDI H
13	I/O	BP SYSIO 6	49	O	OP VAR 27	85	I	IP TEST3	121	I	IP SDI FLG
14	I/O	BP SYSIO 7	50	O	OP REF 27	86	O	OP H1125 0	122	I	IP SDI CK
15	O	OV$_{SS}$ 1	51	I	XSM	87	O	OP F1125 0	123	O	OV$_{SS}$ 5
16	O	OP VAR 2458	52	I	XTST	88	O	OP H1125 1	124	I	IP CMP 1125
17	O	OP REF 2458	53	I	IP VCO 2700	89	O	OP F1125 1	125	I	IP CMP 525
18	—	V_{DD}	54	—	V_{DD}	90	—	V_{DD}	126	—	V_{DD}
19	—	GND	55	—	GND	91	—	GND	127	—	GND
20	I	IP VCO 2458	56	I	IP VCO 2703	92	O	OP H1125 2	128	O	SDO0
21	I	IP RST5FRM	57	O	OV$_{DD}$ 2	93	O	OP F1125 2	129	I	IP SUBCAR
22	O	OP LR 48K	58	O	OP SYNC1125 0	94	I	IP PLLTEST	130	I	IP SDIA F
23	O	OP FS64 48K	59	O	OP SYNC1125 1	95	O	OP CKO 74M	131	I	IP SDIA V
24	O	OP FS128 48K	60	O	OP SYNC1125 2	96	O	OP CKO 37M	132	I	IP SDIA H
25	O	OP FS256 48K	61	O	OP SYNC1125 3	97	O	OP CKO 18M	133	I	IP SDIA CK
26	O	OP FS512 48K	62	O	OP SYNC1125 4	98	O	OV$_{SS}$ 4	134	I	IP TEST0
27	O	OV$_{SS}$ 2	63	O	OP SYNC1125 5	99	I	IP VCO 7425	135	I	IP TEST1
28	O	OP VAR 2455	64	O	OP SYNC1125 6	100	O	OV$_{DD}$ 3	136	I	IP TEST2
29	O	OP REF 2455	65	O	OP SYNC1125 7	101	I	IP VCO 7418	137	I	VPDEA
30	—	GND	66	—	GND	102	—	GND	138	—	GND
31	I	IP VCO 2455	67	O	OP SYNC1125 8	103	O	OP VAR 74	139	O	OP LOCKAUD
32	O	OV$_{DD}$1	68	O	OP SYNC1125 9	104	O	OP REF 74	140	I	IP TEST6
33	O	OP LR 479K	69	O	OP H1125 3	105	I	IP VARCMP 74	141	I	IP TEST7
34	O	OP FS64 479K	70	O	OP F1125 3	106	O	OP FRUN	142	O	OV$_{DD}$ 4
35	O	OP FS128 479K	71	O	OP H1125 4	107	O	OP VARDADT 0	143	—	NC
36	O	OP FS256 479K	72	O	OP F1125 4	108	O	OP VARDADT 1	144	I	IP RESET

CXD9014BR (SONY)

C-MOS VIDEO FILTER

—TOP VIEW—

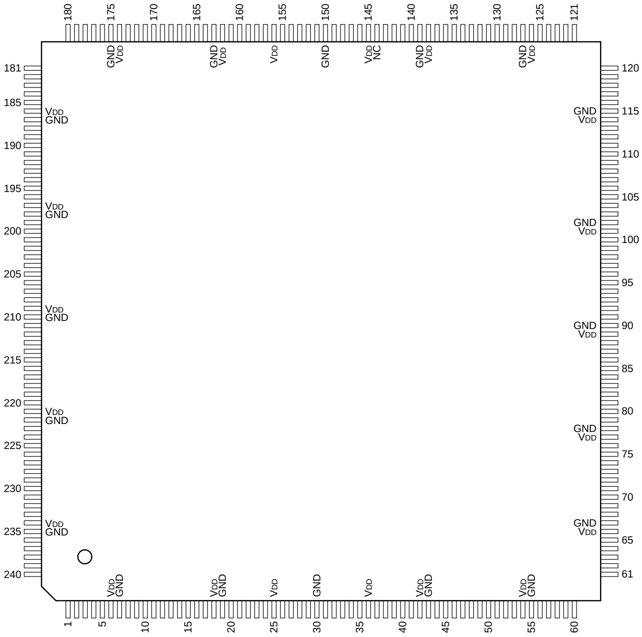


PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	CD 1	53	O	OP FRAME	105	I	VPD	157	I	ODD ID 4
2	I	CD 0	54	O	OP SYNC	106	I/O	SDR DATA 15	158	I	ODD ID 3
3	—	GND	55	O	EVEN OD 0	107	—	GND	159	I	ODD ID 2
4	I	DATA EN	56	O	EVEN OD 1	108	I/O	SDR DATA 14	160	I	ODD ID 1
5	I	SDI H	57	O	EVEN OD 2	109	I/O	SDR DATA 13	161	I	ODD ID 0
6	I	SDI F	58	O	EVEN OD 3	110	I/O	SDR DATA 12	162	I	EVEN ID 9
7	I	REF 74F	59	O	EVEN OD 4	111	I/O	SDR DATA 11	163	I	EVEN ID 8
8	I	REF 46F	60	—	GND	112	I/O	SDR DATA 10	164	—	GND
9	I	OP ENABLE	61	—	VDD	113	I/O	SDR DATA 9	165	—	VDD
10	—	VDD	62	O	EVEN OD 5	114	—	VDD	166	I	EVEN ID 7
11	I	CHIP SELECT	63	O	EVEN OD 6	115	I/O	SDR DATA 8	167	I	EVEN ID 6
12	I	STROBE	64	O	EVEN OD 7	116	I/O	SDR DATA 7	168	I	EVEN ID 5
13	I	STATUS 0	65	O	EVEN OD 8	117	I/O	SDR DATA 6	169	I	EVEN ID 4
14	I	STATUS 1	66	O	EVEN OD 9	118	I	VREF	170	I	EVEN ID 3
15	—	GND	67	O	ODD OD 0	119	—	GND	171	I	EVEN ID 2
16	I/O	SYS BUS 0	68	O	ODD OD 1	120	I/O	SDR DATA 5	172	I	EVEN ID 1
17	I/O	SYS BUS 1	69	O	ODD OD 2	121	I/O	SDR DATA 4	173	I	EVEN ID 0
18	I/O	SYS BUS 2	70	O	ODD OD 3	122	I/O	SDR DATA 3	174	O	VS1
19	—	VDD	71	O	ODD OD 4	123	—	VDD	175	O	VDI1
20	I/O	SYS BUS 3	72	—	GND	124	I/O	SDR DATA 2	176	—	GND
21	I/O	SYS BUS 4	73	—	VDD	125	I/O	SDR DATA 1	177	—	VDD
22	I/O	SYS BUS 5	74	O	ODD OD 5	126	I/O	SDR DATA 0	178	O	VS2
23	I/O	SYS BUS 6	75	O	ODD OD 6	127	O	SDR DQM	179	O	VDI2
24	I/O	SYS BUS 7	76	O	ODD OD 7	128	O	SDR WE	180	I	IP HSYNC
25	O	F	77	O	ODD OD 8	129	O	SDR CK	181	I	RESET
26	—	GND	78	O	ODD OD 9	130	—	GND	182	I	PLLS
27	—	VDD	79	—	VDD	131	—	VDD	183	—	VDD
28	O	H	80	I	XSM	132	O	SDR CAS	184	I	SMCK
29	O	CD 0	81	I	XTST	133	O	SDR CKE	185	I	CK46
30	O	CD 1	82	I	DUB FRAME	134	O	SDR RAS	186	I	CK74
31	O	CD 2	83	I	DUB SYNC	135	O	SDR CS	187	I	YD 9
32	O	CD 3	84	I	MST	136	O	SDR ADDR 11	188	I	YD 8
33	O	CD 4	85	—	GND	137	O	SDR ADDR 10	189	—	GND
34	—	VDD	86	—	VDD	138	—	VDD	190	—	VDD
35	O	CD 5	87	I	DUB BD 0	139	O	SDR ADDR 9	191	I	YD 7
36	O	CD 6	88	I	DUB BD 1	140	O	SDR ADDR 8	192	I	YD 6
37	O	CD 7	89	I	DUB BD 2	141	O	SDR ADDR 7	193	I	YD 5
38	—	GND	90	I	DUB BD 3	142	—	GND	194	I	YD 4
39	O	CD 8	91	I	DUB BD 4	143	O	SDR ADDR 6	195	I	YD 3
40	O	CD 9	92	I	DUB BD 5	144	O	SDR ADDR 5	196	I	YD 2
41	O	YD 0	93	I	DUB BD 6	145	O	SDR ADDR 4	197	I	YD 1
42	O	YD 1	94	I	DUB BD 7	146	O	SDR ADDR 3	198	I	YD 0
43	—	VDD	95	I	DUB AD 0	147	—	VDD	199	I	CD 9
44	O	YD 2	96	—	GND	148	O	SDR ADDR 2	200	—	GND
45	O	YD 3	97	—	VDD	149	O	SDR ADDR 1	201	—	VDD
46	O	YD 4	98	I	DUB AD 1	150	O	SDR ADDR 0	202	I	CD 8
47	O	YD 5	99	I	DUB AD 2	151	I	ODD ID 9	203	I	CD 7
48	O	YD 6	100	I	DUB AD 3	152	I	ODD ID 8	204	I	CD 6
49	O	YD 7	101	I	DUB AD 4	153	I	ODD ID 7	205	I	CD 5
50	—	GND	102	I	DUB AD 5	154	—	GND	206	I	CD 4
51	O	YD 8	103	I	DUB AD 6	155	I	ODD ID 6	207	I	CD 3
52	O	YD 9	104	I	DUB AD 7	156	I	ODD ID 5	208	I	CD 2

CXD9015CR (SONY)

C-MOS ERROR CORRECTION ENCODER

—TOP VIEW—

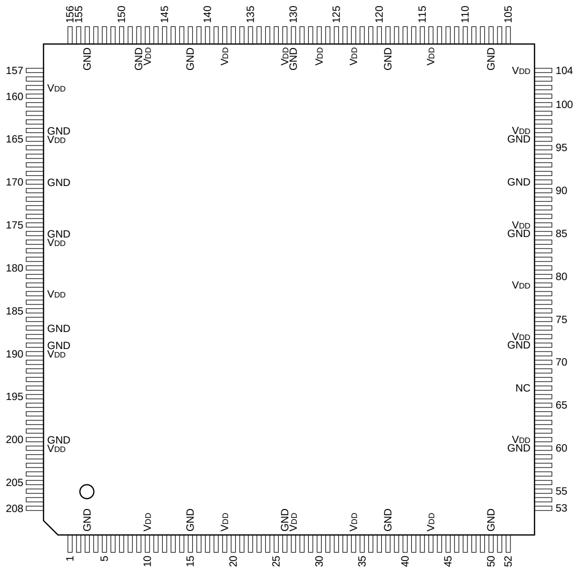


PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	IP CAM	61	O	OVSS 3	121	I	PB AC SEL CONF	181	O	OVSS 13
2	I	IP VPD	62	I/O	BP SYSBUS 4	122	I	PB BD SEL ADV	182	O	EE REC AF SEL
3	I	IP ITSI0	63	I/O	BP SYSBUS 5	123	I	PB AC SEL ADV	183	O	EE REC BF SEL
4	I	IP BRR0 7	64	I/O	BP SYSBUS 6	124	I	IP REC BD SEL	184	O	EE REC CG SEL
5	I	IP BRR0 6	65	I/O	BP SYSBUS 7	125	I	IP REC AC SEL	185	O	EE REC DH SEL
6	—	VDD	66	—	VDD	126	—	VDD	186	—	VDD
7	—	GND	67	—	GND	127	—	GND	187	—	GND
8	I	IP BRR0 5	68	I	IP AUDFP	128	O	OP REC DATDN	188	I/O	BP DQ 15
9	I	IP BRR0 4	69	I	IP 256FS	129	O	OP REC DATDP	189	I/O	BP DQ 14
10	I	IP BRR0 3	70	I	IP AUD1	130	O	OP REC DATCN	190	I/O	BP DQ 13
11	I	IP BRR0 2	71	I	IP AUD0	131	O	OP REC DATCP	191	O	OVDD2 10
12	O	OVDD1 1	72	O	OVDD2 2	132	O	OVDD2 5	192	O	OVSS 14
13	I	IP BRR0 1	73	I	IP FS	133	O	OVSS 9	193	I/O	BP DQ 12
14	I	IP BRR0 0	74	O	OP CHEN	134	O	OP REC DATBN	194	I/O	BP DQ 11
15	I	IP SYNC0	75	O	OP MONEN	135	O	OP REC DATBP	195	I/O	BP DQ 10
16	I	IP XTST	76	O	OP MONSYNCB	136	O	OP REC DATAN	196	I/O	BP DQ 9
17	I	IP BRR1 7	77	—	VDD	137	O	OP REC DATAP	197	—	VDD
18	—	VDD	78	—	GND	138	—	VDD	198	—	GND
19	—	GND	79	O	OP TRSB	139	—	GND	199	I/O	BP DQ 8
20	I	IP BRR1 6	80	O	OP MONB 7	140	O	OP REC CKON	200	I	SDRAM VREF
21	I	IP BRR1 5	81	O	OP MONB 6	141	O	OP REC CKOP	201	I/O	BP DQ 7
22	I	IP BRR1 4	82	O	OP MONB 5	142	O	OP MPXCKN	202	I/O	BP DQ 6
23	I	IP BRR1 3	83	O	OVDD2 3	143	O	OP MPXCKP	203	I/O	BP DQ 5
24	I	IP BRR1 2	84	O	OP MONB 4	144	—	NC	204	O	OVDD2 11
25	—	VDD	85	O	OP MONB 3	145	—	VDD	205	O	OVSS 15
26	O	OVSS 1	86	O	OP MONB 2	146	O	OVSS 10	206	I/O	BP DQ 4
27	I	IP BRR1 1	87	O	OP MONB 1	147	O	OP MPXON	207	I/O	BP DQ 3
28	I	IP BRR1 0	88	O	OP MONB 0	148	O	OP MPXOP	208	I/O	BP DQ 2
29	I	IP SYNC1	89	—	VDD	149	O	OVDD2 6	209	—	VDD
30	—	GND	90	—	GND	150	—	GND	210	—	GND
31	I	CLK46S0	91	I	PLL THROUGH	151	O	OP EE CKO1N	211	I/O	BP DQ 1
32	O	OVDD2 1	92	O	OVDD2 4	152	O	OP EE CKO1P	212	I/O	BP DQ 0
33	O	OP 47MFF	93	I	IP TESTCK94M	153	O	OVDD2 7	213	O	OP LDQM
34	O	OP 94MFF	94	O	OVSS 4	154	O	OP EE CKO0N	214	O	OP UDQM
35	O	OP 47ML	95	I	IP TESTCK47M	155	O	OP EE CKO0P	215	O	OP WE
36	—	VDD	96	O	OVDD1 3	156	—	VDD	216	O	OVDD2 12
37	O	OVSS 2	97	I	CLK47M 60H	157	I	EAN	217	O	OP SDRAMCLK
38	O	OP 94ML	98	O	OVSS 5	158	I	EXN	218	O	OP CASN
39	I	IP RSTSYS	99	I	CLK47M 59H	159	O	OVSS 11	219	O	OP CKE
40	I	IP SMCK	100	O	OVSS 6	160	I	EXP	220	O	OP RASN
41	I	IP XSM	101	—	VDD	161	I	EAP	221	—	VDD
42	—	VDD	102	—	GND	162	—	VDD	222	—	GND
43	—	GND	103	O	OVDD1 4	163	—	GND	223	O	OP CS
44	I	IP MST	104	O	OVSS 7	164	O	OVDD2 8	224	O	OP ADDRESS 11
45	I	IP TSI2	105	O	OP MONSYNCA	165	O	OVSS 12	225	O	OP ADDRESS 10
46	I	IP TSI1	106	O	OP TRSA	166	O	OP EE DATDN	226	O	OP ADDRESS 9
47	I	IP TSI0	107	O	OP MONA 7	167	O	OP EE DATDP	227	O	OP ADDRESS 8
48	O	OVDD1 2	108	O	OP MONA 6	168	O	OP EE DATCN	228	O	OVSS 16
49	I	IP RECINH	109	O	OP MONA 5	169	O	OP EE DATCP	229	O	OP ADDRESS 7
50	I	IP SYSREF	110	O	OVSS 8	170	O	OP EE DATBN	230	O	OP ADDRESS 6
51	I	IP SYSCS	111	O	OP MONA 4	171	O	OP EE DATBP	231	O	OP ADDRESS 5
52	I	IP SYSTBR	112	O	OP MONA 3	172	O	OP EE DATAN	232	O	OP ADDRESS 4
53	I	IP SYSTAT 1	113	O	OP MONA 2	173	O	OP EE DATAP	233	O	OP ADDRESS 3
54	—	VDD	114	—	VDD	174	—	VDD	234	—	VDD
55	—	GND	115	—	GND	175	—	GND	235	—	GND
56	I	IP SYSTAT 0	116	O	OP MONA 1	176	O	OP RECEND	236	O	OP ADDRESS 2
57	I/O	BP SYSBUS 0	117	O	OP MONA 0	177	O	OP RECENC	237	O	OP ADDRESS 1
58	I/O	BP SYSBUS 1	118	I	IP F ERASEB	178	O	OP RECENB	238	O	OP ADDRESS 0
59	I/O	BP SYSBUS 2	119	I	IP F ERASEA	179	O	OP RECENA	239	O	OVSS 17
60	I/O	BP SYSBUS 3	120	I	PB BD SEL CONF	180	O	OVDD2 9	240	I	IP SDRAMINIT

CXD9016AR (SONY)

C-MOS ERROR CORRECTION DECODER

—TOP VIEW—

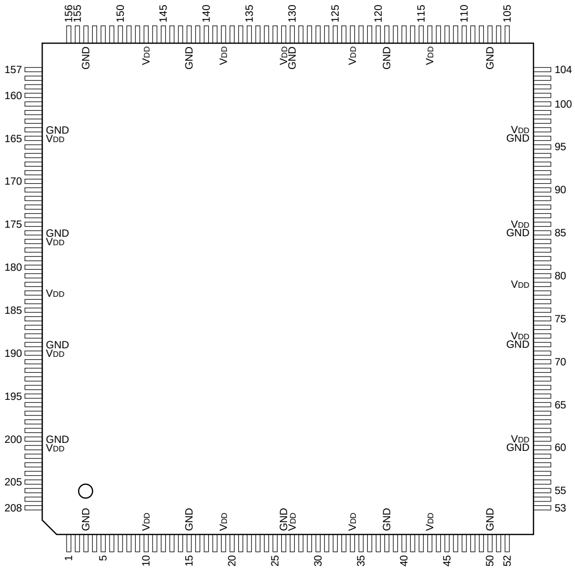


PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	RST RESET	53	I	IP SYRW	105	I	IP SPSTOM	157	O	OP MRAS
2	O	VDD2 ADD0	54	O	OP SYRW	106	I	CLK CKSPM	158	O	OP MCS
3	—	GND	55	O	OP ADOUT12	107	—	GND	159	—	VDD
4	I/O	BP AXRQ	56	O	OP ADOUT34	108	I	IP SPINM 7	160	O	OP MA 11
5	I/O	BP AXE	57	O	OP AVSTO	109	I	IP SPINM 6	161	O	OP MA 10
6	I/O	BP AXD 0	58	I	IP DEBUG	110	I	IP SPINM 5	162	O	OP MA 9
7	I/O	BP AXD 1	59	I	IP VPD	111	I	IP SPINM 4	163	O	OP MA 8
8	I/O	BP AXD 2	60	—	GND	112	I	IP SPINM 3	164	—	GND
9	I/O	BP AXD 3	61	—	VDD	113	I	IP SPINM 2	165	—	VDD
10	—	VDD	62	I	IP JUMP	114	—	VDD	166	O	OP MA 7
11	I/O	BP AXD 4	63	I	IP REV	115	I	IP SPINM 1	167	O	OP MA 6
12	I/O	BP AXD 5	64	I	IP FRAME	116	I	IP SPINM 0	168	O	OP MA 5
13	I/O	BP AXD 6	65	I	IP FS	117	O	OP ECMONM 2	169	O	OP MA 4
14	I/O	BP AXD 7	66	I	CLK FS256	118	O	OP ECMONM 1	170	—	GND
15	—	GND	67	—	NC	119	—	GND	171	O	OP MA 3
16	O	OP TRREF	68	I	IP EESWPS	120	O	OP ECMONM 0	172	O	OP MA 2
17	O	OP ACEF	69	I	IP EESWPM	121	O	OP ECMONS 2	173	O	OP MA 1
18	O	OP PBSYM	70	I	IP PBSWPS	122	O	OP ECMONS 1	174	O	OP MA 0
19	—	VDD	71	I	IP PBSWPM	123	—	VDD	175	I	IP MINIT
20	O	OP PBSYS	72	—	GND	124	O	OP ECMONS 0	176	—	GND
21	O	OP SEG 0	73	—	VDD	125	I	IP MBSEL	177	—	VDD
22	O	OP SEG 1	74	I	IP SPINS 0	126	I	IP MRW	178	I	IP CID 2
23	O	OP SEG 2	75	I	IP SPINS 1	127	—	VDD	179	I	IP CID 1
24	O	OP SEG 3	76	I	IP SPINS 2	128	I/O	BP MDQ 15	180	I	IP CID 0
25	O	OP ADERR	77	I	IP SPINS 3	129	I/O	BP MDQ 14	181	O	OP MCMON 2
26	—	GND	78	I	IP SPINS 4	130	—	GND	182	O	OP MCMON 1
27	—	VDD	79	—	VDD	131	—	VDD	183	—	VDD
28	O	OP ADPO 0	80	I	IP SPINS 5	132	I/O	BP MDQ 13	184	O	OP MCMON 0
29	O	OP ADPO 1	81	I	IP SPINS 6	133	I/O	BP MDQ 12	185	I	XTST
30	O	OP ADPO 2	82	I	IP SPINS 7	134	I/O	BP MDQ 11	186	I	XSM
31	O	OP ADPO 3	83	I	CLK CKSPS	135	I/O	BP MDQ 10	187	—	GND
32	O	OP ADPO 4	84	I	IP SPSTOS	136	I/O	BP MDQ 9	188	I	CLK CK46
33	O	OP ADPO 5	85	—	GND	137	I/O	BP MDQ 8	189	—	GND
34	—	VDD	86	—	VDD	138	—	VDD	190	—	VDD
35	O	OP ADPO 6	87	I	CLK CKEEMY	139	I	IP MREF	191	I	CLK CKT46
36	O	OP ADPO 7	88	I	CLK CKEEMX	140	I/O	BP MDQ 7	192	O	VDD1 ADD1
37	O	OP ADPSTO	89	I	IP EERFSY	141	I/O	BP MDQ 6	193	I	IP SELCK
38	—	GND	90	I	IP EERFSX	142	—	GND	194	I	MST
39	I	IP SYCS	91	—	GND	143	I/O	BP MDQ 5	195	I	SMCK
40	I	CLK CKSY	92	I	IP EERFMY	144	I/O	BP MDQ 4	196	O	OP VDOUT 7
41	I	IP SYSTA 0	93	I	IP EERFMX	145	I/O	BP MDQ 3	197	O	OP VDOUT 6
42	I	IP SYSTA 1	94	I	CLK CKPBSY	146	I/O	BP MDQ 2	198	O	OP VDOUT 5
43	—	VDD	95	I	CLK CKPBSX	147	—	VDD	199	O	OP VDOUT 4
44	I/O	BP SYIO 0	96	—	GND	148	—	GND	200	—	GND
45	I/O	BP SYIO 1	97	—	VDD	149	I/O	BP MDQ 1	201	—	VDD
46	I/O	BP SYIO 2	98	I	IP PBRFSY	150	I/O	BP MDQ 0	202	O	OP VDOUT 3
47	I/O	BP SYIO 3	99	I	IP PBRFSX	151	O	OP MDQM	203	O	OP VDOUT 2
48	I/O	BP SYIO 4	100	I	CLK CKPBMY	152	O	OP MWE	204	O	OP VDOUT 1
49	I/O	BP SYIO 5	101	I	CLK CKPBMX	153	O	CLK CKM46	205	O	OP VDOUT 0
50	—	GND	102	I	IP PBRFMY	154	—	GND	206	O	OP VEOUT
51	I/O	BP SYIO 6	103	I	IP PBRFMX	155	O	OP MCAS	207	O	OP VSTO
52	I/O	BP SYIO 7	104	—	VDD	156	O	OP MCKE	208	O	OP VFRAME

CXD9017BR (SONY)

C-MOS VIDEO CONCEALMENT

—TOP VIEW—



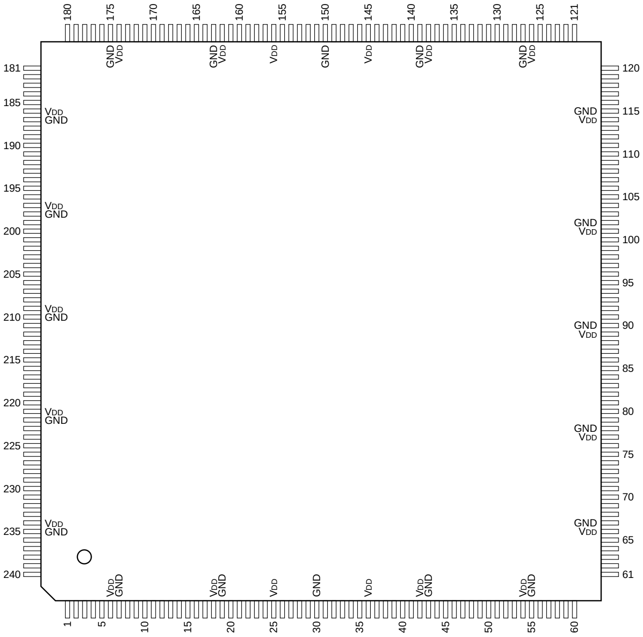
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	IP SYS STATUS 0	53	O	OP SDRAM CS	105	I	IP VIDEO B 2	157	O	OP VIDEO 13
2	I	IP SYS STATUS 1	54	O	OP SDRAM RAS	106	I	IP VIDEO B 3	158	O	OP VIDEO 12
3	—	GND	55	O	OVDD 2	107	—	GND	159	O	OVSS 13
4	O	OVDD 0	56	O	OVSS 4	108	I	IP VIDEO B 4	160	O	OP VIDEO 11
5	I/O	BP SDRAM DAT 0	57	O	OP SDRAM CAS	109	I	IP VIDEO B 5	161	O	OP VIDEO 10
6	I/O	BP SDRAM DAT 1	58	O	OP SDRAM WE	110	I	IP VIDEO B 6	162	O	OP VIDEO 9
7	I/O	BP SDRAM DAT 2	59	O	OP SDRAM CKE	111	I	IP VIDEO B 7	163	O	OP VIDEO 8
8	I/O	BP SDRAM DAT 3	60	—	GND	112	O	OP FIFO WRST	164	—	GND
9	I/O	BP SDRAM DAT 4	61	—	VDD	113	O	OVSS 9	165	—	VDD
10	—	VDD	62	O	OP SDRAM DQM	114	—	VDD	166	O	OP VIDEO 7
11	O	OVSS 0	63	O	OP SDRAM CK	115	O	OP FIFO WCK A	167	O	OP VIDEO 6
12	I/O	BP SDRAM DAT 5	64	O	OP SDRAM ADDR 0	116	O	OP FIFO RCK A	168	O	OP VIDEO 5
13	I/O	BP SDRAM DAT 6	65	O	OP SDRAM ADDR 1	117	O	OP FIFO OE A	169	O	OP VIDEO 4
14	I/O	BP SDRAM DAT 7	66	O	OVDD 3	118	O	OP FIFO WE A	170	O	OVSS 14
15	—	GND	67	O	OVSS 5	119	—	GND	171	O	OP VIDEO 3
16	I	IP SDRAM REF 0	68	O	OP SDRAM ADDR 2	120	O	OP FIFO RE A	172	O	OP VIDEO 2
17	I/O	BP SDRAM DAT 8	69	O	OP SDRAM ADDR 3	121	O	OP FIFO WCK B	173	O	OP VIDEO 1
18	I/O	BP SDRAM DAT 9	70	O	OP SDRAM ADDR 4	122	O	OP FIFO RCK B	174	O	OP VIDEO 0
19	—	VDD	71	O	OP SDRAM ADDR 5	123	—	VDD	175	O	OP Q INDEX 3
20	O	OVSS 1	72	—	GND	124	O	OVSS 10	176	—	GND
21	I/O	BP SDRAM DAT 10	73	—	VDD	125	O	OP FIFO OE B	177	—	VDD
22	I/O	BP SDRAM DAT 11	74	O	OP SDRAM ADDR 6	126	O	OP FIFO WE B	178	O	OP Q INDEX 2
23	I/O	BP SDRAM DAT 12	75	O	OP SDRAM ADDR 7	127	O	OP FIFO RE B	179	O	OP Q INDEX 1
24	I/O	BP SDRAM DAT 13	76	O	OP SDRAM ADDR 8	128	I	IP CONCEAL CTL 0	180	O	OP Q INDEX 0
25	I/O	BP SDRAM DAT 14	77	O	OP SDRAM ADDR 9	129	I	IP CONCEAL CTL 1	181	O	OP HD SYNC
26	—	GND	78	O	OVSS 6	130	—	GND	182	O	OP SUB HD SYNC
27	—	VDD	79	—	VDD	131	—	VDD	183	—	VDD
28	I/O	BP SDRAM DAT 15	80	O	OP SDRAM ADDR 10	132	I	IP CONCEAL CTL 2	184	O	OVDD 5
29	I/O	BP SDRAM DAT 16	81	O	OP SDRAM ADDR 11	133	I	IP OUTPUT MASK	185	I	IP CKL SEL
30	I/O	BP SDRAM DAT 17	82	I	IP HD SYNC A	134	I	IP FREEZE CTL 0	186	O	OVSS 15
31	I/O	BP SDRAM DAT 18	83	I	IP Q INDEX A 0	135	I	IP FREEZE CTL 1	187	I	IP CLK74
32	I/O	BP SDRAM DAT 19	84	I	IP Q INDEX A 1	136	I	IP FREEZE CTL 2	188	O	OVDD PLL
33	O	OVSS 2	85	—	GND	137	O	OVSS 11	189	—	GND
34	—	VDD	86	—	VDD	138	—	VDD	190	—	VDD
35	I/O	BP SDRAM DAT 20	87	I	IP VIDEO A 0	139	O	OP PLL FF	191	O	OVSS PLL
36	I/O	BP SDRAM DAT 21	88	I	IP VIDEO A 1	140	O	OP FIFO RRST	192	I	IP CKL46
37	I/O	BP SDRAM DAT 22	89	I	IP VIDEO A 2	141	I	SDI0	193	O	OVDD 6
38	—	GND	90	I	IP VIDEO A 3	142	—	GND	194	I	IP SYSTEM RESET
39	I/O	BP SDRAM DAT 23	91	O	OVSS 7	143	I	SDI1	195	I	IP RAM INIT
40	I	IP SDRAM REF 1	92	I	IP VIDEO A 4	144	O	SDO0	196	I/O	BP SYS DATA 7
41	I/O	BP SDRAM DAT 24	93	I	IP VIDEO A 5	145	O	SDO1	197	I/O	BP SYS DATA 6
42	I/O	BP SDRAM DAT 25	94	I	IP VIDEO A 6	146	I	XSM	198	I/O	BP SYS DATA 5
43	—	VDD	95	I	IP VIDEO A 7	147	—	VDD	199	I/O	BP SYS DATA 4
44	O	OVSS 3	96	—	GND	148	O	OVSS 12	200	—	GND
45	I/O	BP SDRAM DAT 26	97	—	VDD	149	I	XTST	201	—	VDD
46	I/O	BP SDRAM DAT 27	98	I	IP HD SYNC B	150	I	SMCK	202	I/O	BP SYS DATA 3
47	I/O	BP SDRAM DAT 28	99	I	IP Q INDEX B 0	151	I	MST	203	I/O	BP SYS DATA 2
48	I/O	BP SDRAM DAT 29	100	I	IP Q INDEX B 1	152	I	IP OE	204	I/O	BP SYS DATA 1
49	O	OVDD 1	101	I	IP VIDEO B 0	153	I	IP VP	205	O	OVSS 16
50	—	GND	102	O	OVSS 8	154	—	GND	206	I/O	BP SYS DATA 0
51	I/O	BP SDRAM DAT 30	103	O	OVDD 4	155	O	OP VIDEO 15	207	I	IP SYS CS
52	I/O	BP SDRAM DAT 31	104	I	IP VIDEO B 1	156	O	OP VIDEO 14	208	I	IP SYS STROBE

http://getMANUAL.com

CXD9018BR (SONY)

C-MOS VIDEO PROCESSOR

—TOP VIEW—



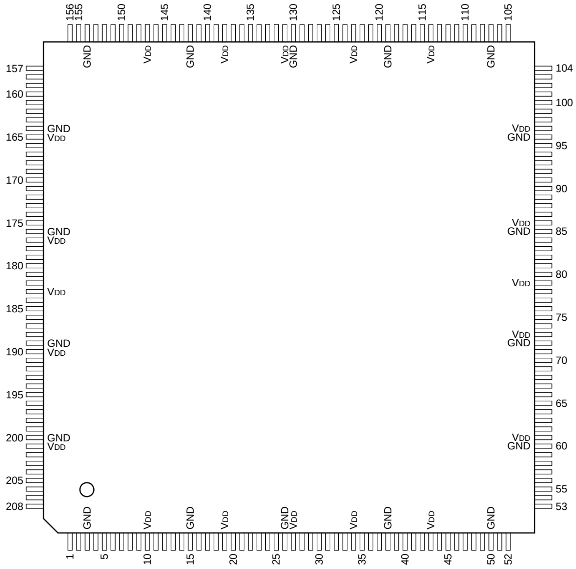
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	MY WDATA 19	31	O	MY WCKB	61	I	CD 3	91	O	VSS 2
2	O	MY WDATA 18	32	O	MY WR	62	I	CD 4	92	O	VDD1 2
3	O	MY WDATA 17	33	O	VDD2 1	63	I	CD 5	93	I	ICHK F
4	O	MY WDATA 16	34	O	MY RCKA	64	I	CD 6	94	I	ICHK H
5	O	MY WDATA 15	35	O	MY RCKB	65	I	CD 7	95	I	ICHK CD 0
6	—	VDD	36	—	VDD	66	—	VDD	96	I	ICHK CD 1
7	—	GND	37	O	MY RR	67	—	GND	97	I	ICHK CD 2
8	O	MY WDATA 14	38	I	FIFO VSP	68	I	CD 8	98	I	ICHK CD 3
9	O	MY WDATA 13	39	I/O	SY BUS 7	69	I	CD 9	99	I	ICHK CD 4
10	O	MY WDATA 12	40	I/O	SY BUS 6	70	I	YD 0	100	I	ICHK CD 5
11	O	MY WDATA 11	41	I/O	SY BUS 5	71	I	YD 1	101	—	VDD
12	O	MY WDATA 10	42	—	VDD	72	I	YD 2	102	—	GND
13	O	MY WDATA 9	43	—	GND	73	I	YD 3	103	I	ICHK CD 6
14	O	MY WDATA 8	44	I/O	SY BUS 4	74	I	YD 4	104	I	ICHK CD 7
15	O	MY WDATA 7	45	I/O	SY BUS 3	75	I	YD 5	105	I	ICHK CD 8
16	O	MY WDATA 6	46	I/O	SY BUS 2	76	I	YD 6	106	I	ICHK CD 9
17	O	MY WDATA 5	47	I/O	SY BUS 1	77	—	VDD	107	I	ICHK YD 0
18	—	VDD	48	I/O	SY BUS 0	78	—	GND	108	I	ICHK YD 1
19	—	GND	49	I	STATUS 1	79	I	YD 7	109	I	ICHK YD 2
20	O	MY WDATA 4	50	I	STATUS 0	80	I	YD 8	110	I	ICHK YD 3
21	O	MY WDATA 3	51	I	STROBE	81	I	YD 9	111	I	ICHK YD 4
22	O	MY WDATA 2	52	I	CHIP SELECT	82	I	CK74	112	I	ICHK YD 5
23	O	MY WDATA 1	53	I	RESET	83	I	SMCK	113	I	ICHK YD 6
24	O	MY WDATA 0	54	—	VDD	84	I	MST	114	—	VDD
25	—	VDD	55	—	GND	85	O	VDD1 1	115	—	GND
26	O	OMY H	56	I	F	86	O	VSS 1	116	I	ICHK YD 7
27	O	OMY F	57	I	H	87	I	PLLS	117	I	ICHK YD 8
28	O	OMY PF	58	I	CD 0	88	I	ICHK CK74	118	I	ICHK YD 9
29	O	MY WCKA	59	I	CD 1	89	—	VDD	119	I	IMY F
30	—	GND	60	I	CD 2	90	—	GND	120	I	IMY H

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
121	I	MY RDATA 0	151	I	IINTEN	181	I	OUT ENABLE	211	O	VDD2 2
122	I	MY RDATA 1	152	I	IVOB	182	I	VP	212	I	XTST
123	I	MY RDATA 2	153	O	CG H	183	O	CD 0	213	I	XSM
124	I	MY RDATA 3	154	O	CG V	184	O	CD 1	214	O	DNC CD 0
125	I	MY RDATA 4	155	O	CG ENEN	185	O	CD 2	215	O	DNC CD 1
126	—	VDD	156	—	VDD	186	—	VDD	216	O	DNC CD 2
127	—	GND	157	O	MONI CD 0	187	—	GND	217	O	DNC CD 3
128	I	MY RDATA 5	158	O	MONI CD 1	188	O	CD 3	218	O	DNC CD 4
129	I	MY RDATA 6	159	O	MONI CD 2	189	O	CD 4	219	O	DNC CD 5
130	I	MY RDATA 7	160	O	MONI CD 3	190	O	CD 5	220	O	DNC CD 6
131	I	MY RDATA 8	161	O	MONI CD 4	191	O	CD 6	221	—	VDD
132	I	MY RDATA 9	162	—	VDD	192	O	CD 7	222	—	GND
133	I	MY RDATA 10	163	—	GND	193	O	CD 8	223	O	DNC CD 7
134	I	MY RDATA 11	164	O	MONI CD 5	194	O	CD 9	224	O	DNC CD 8
135	I	MY RDATA 12	165	O	MONI CD 6	195	O	YD 0	225	O	DNC CD 9
136	I	MY RDATA 13	166	O	MONI CD 7	196	O	YD 1	226	O	DNC YD 0
137	I	MY RDATA 14	167	O	MONI CD 8	197	—	VDD	227	O	DNC YD 1
138	—	VDD	168	O	MONI CD 9	198	—	GND	228	O	DNC YD 2
139	—	GND	169	O	MONI YD 0	199	O	YD 2	229	O	DNC YD 3
140	I	MY RDATA 15	170	O	MONI YD 1	200	O	YD 3	230	O	DNC YD 4
141	I	MY RDATA 16	171	O	MONI YD 2	201	O	YD 4	231	O	DNC YD 5
142	I	MY RDATA 17	172	O	MONI YD 3	202	O	YD 5	232	O	DNC YD 6
143	I	MY RDATA 18	173	O	MONI YD 4	203	O	YD 6	233	O	DNC YD 7
144	I	MY RDATA 19	174	—	VDD	204	O	YD 7	234	—	VDD
145	—	VDD	175	—	GND	205	O	YD 8	235	—	GND
146	I	DOCK IN	176	O	MONI YD 5	206	O	YD 9	236	O	DNC YD 8
147	I	IRED	177	O	MONI YD 6	207	O	H	237	O	DNC YD 9
148	I	IGREEN	178	O	MONI YD 7	208	O	F	238	O	DNC H
149	I	IBLUE	179	O	MONI YD 8	209	—	VDD	239	O	DNC F
150	—	GND	180	O	MONI YD 9	210	—	GND	240	O	DNC PF

CXD9019AR (SONY)

C-MOS BIT REDUCTION ENCODER

—TOP VIEW—

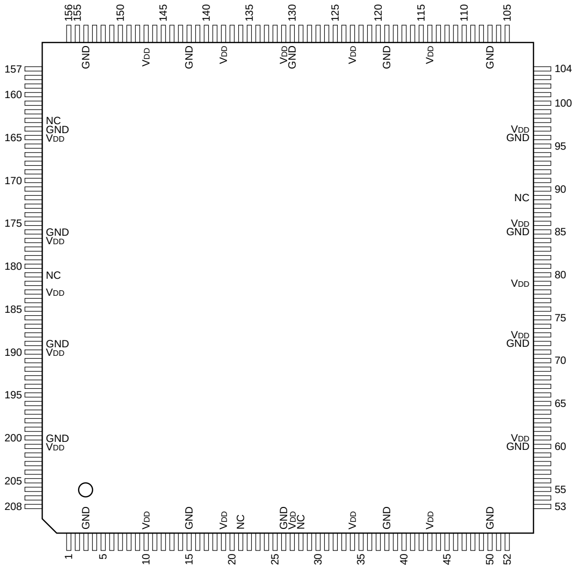


PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	IP TBUS10	53	I	SDI	105	O	VD2 4	157	O	VD2 8
2	I	IP TBUS11	54	I	SM	106	I/O	BI EXT D15	158	O	OP EXT A3
3	—	GND	55	I	SMCK	107	—	GND	159	O	OP EXT A2
4	I	IP TBUS12	56	O	VS1 1	108	I/O	BI EXT D14	160	O	OP EXT A1
5	I	IP TBUS13	57	O	OP TBUS0	109	I/O	BI EXT D13	161	O	OP EXT A0
6	I	IP TBUS14	58	O	OP TBUS1	110	I/O	BI EXT D12	162	I	IP IH
7	I	IP TBUS15	59	O	OP TBUS2	111	I/O	BI EXT D11	163	I	IP VID0
8	I	IP TBUS16	60	—	GND	112	I/O	BI EXT D10	164	—	GND
9	I	IP TBUS17	61	—	VDD	113	O	VS1 6	165	—	VDD
10	—	VDD	62	O	OP TBUS3	114	—	VDD	166	I	IP VID1
11	I	IP TBUS18	63	O	OP TBUS4	115	I/O	BI EXT D9	167	I	IP VID2
12	I	IP TBUS19	64	O	OP TBUS5	116	I/O	BI EXT D8	168	I	IP VID3
13	I	IP TBUS20	65	O	OP TBUS6	117	I/O	BI EXT D7	169	I	IP VID4
14	I	IP TBUS21	66	O	VS1 2	118	I	VREF IN	170	I	IP VID5
15	—	GND	67	O	OP TBUS7	119	—	GND	171	I	IP VID6
16	I	IP TBUS22	68	O	OP TBUS8	120	O	VD2 5	172	I	IP VID7
17	I	IP TBUS23	69	O	OP TBUS9	121	I/O	BI EXT D6	173	I	IP H SYNC
18	I	IP TBUS24	70	O	OP TBUS10	122	I/O	BI EXT D5	174	O	VD1 1
19	—	VDD	71	O	VD2 2	123	—	VDD	175	I	CLK TST1
20	I	IP TBUS25	72	—	GND	124	I/O	BI EXT D4	176	—	GND
21	I	IP TBUS26	73	—	VDD	125	I/O	BI EXT D3	177	—	VDD
22	I	IP TBUS27	74	O	OP TBUS11	126	O	VS1 7	178	O	VS1 9
23	I	IP TBUS28	75	O	OP TBUS12	127	I/O	BI EXT D2	179	O	VD1 2
24	I	IP TBUS29	76	O	OP TBUS13	128	I/O	BI EXT D1	180	I	CK VID
25	I	IP TOMX0	77	O	OP TBUS14	129	I/O	BI EXT D0	181	O	VS1 10
26	—	GND	78	O	OP TBUS15	130	—	GND	182	I	CLR SYS
27	—	VDD	79	—	VDD	131	—	VDD	183	—	VDD
28	I	IP TOMX1	80	O	VS1 3	132	O	DIR OUT	184	I	CLK TST0
29	I	IP TOMX2	81	O	OP TBUS16	133	I	DIR IN	185	I	IP SEL
30	I	IP TOMX3	82	O	OP TBUS17	134	O	VD2 6	186	O	OP SEL
31	I	IP TSEL0	83	O	OP TBUS18	135	I	IP EXT CLK	187	I	IP LOFFSEL
32	I	IP TSEL1	84	O	OP TBUS19	136	O	VS1 8	188	O	OP LOCK
33	I	IP TSEL2	85	—	GND	137	O	OP EXT DQM	189	—	GND
34	—	VDD	86	—	VDD	138	—	VDD	190	—	VDD
35	I	IP TSEL3	87	O	SDO	139	O	OP EXT WE	191	O	OP PLLFF
36	I	IP CS	88	O	OP SEG P	140	O	VD2 7	192	I	IP TEN
37	I	IP STRB	89	O	OP FRM P	141	O	OP EXT CK	193	O	OP TIMX0
38	—	GND	90	O	OP SYNC	142	—	GND	194	O	OP TIMX1
39	I	IP STAT0	91	O	VD2 3	143	O	OP EXT CAS	195	O	OP TIMX2
40	I	IP STAT1	92	O	VD1 4	144	O	OP EXT RAS	196	O	OP TIMX3
41	I/O	BI SYSIO0	93	O	OP CVID0	145	O	OP EXT CS2	197	O	OP TBUS0
42	I/O	BI SYSIO1	94	O	OP CVID1	146	O	OP EXT CS1	198	O	OP TBUS1
43	—	VDD	95	O	OP CVID2	147	—	VDD	199	O	OP TBUS2
44	I/O	BI SYSIO2	96	—	GND	148	O	OP EXT A11	200	—	GND
45	I/O	BI SYSIO3	97	—	VDD	149	O	OP EXT A10	201	—	VDD
46	I/O	BI SYSIO4	98	O	OP CVID3	150	O	OP EXT A9	202	I	IP TBUS3
47	I/O	BI SYSIO5	99	O	OP CVID4	151	O	OP EXT A8	203	I	IP TBUS4
48	I/O	BI SYSIO6	100	O	OP CVID5	152	O	OP EXT A7	204	I	IP TBUS5
49	O	VD2 1	101	O	OP CVID6	153	O	OP EXT A6	205	I	IP TBUS6
50	—	GND	102	O	OP CVID7	154	—	GND	206	I	IP TBUS7
51	I/O	BI SYSIO7	103	O	VS1 5	155	O	OP EXT A5	207	I	IP TBUS8
52	I	MST	104	I	VPD	156	O	OP EXT A4	208	I	IP TBUS9

CXD9020CR (SONY)

C-MOS BIT REDUCTION DECODER

—TOP VIEW—

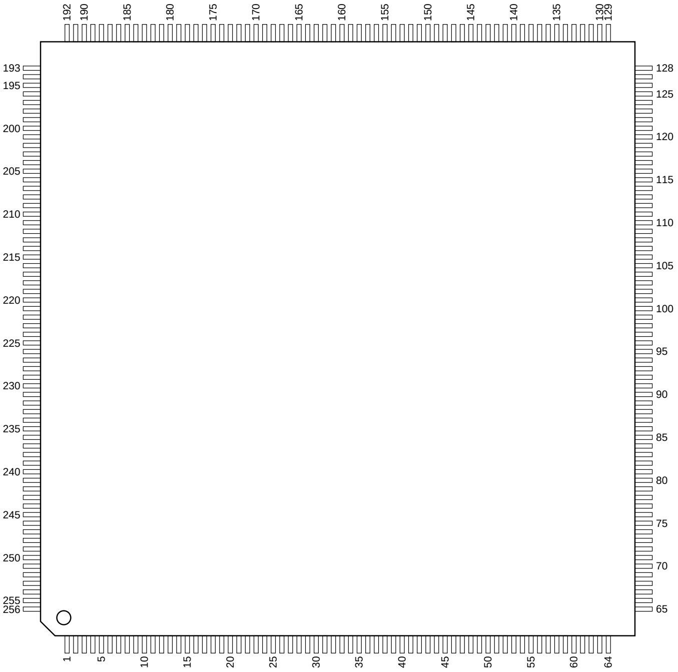


PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	OP TBUS3	53	I	IP TBUS9	105	O	VD2 2	157	O	VD2 6
2	O	OP TBUS2	54	I	IP TBUS10	106	I/O	BI EXT D15	158	O	OP EXT A3
3	—	GND	55	I	IP TBUS11	107	—	GND	159	O	OP EXT A2
4	O	VD2 1	56	I	IP TBUS12	108	I/O	BI EXT D14	160	O	OP EXT A1
5	O	OP TBUS1	57	I	IP TBUS13	109	I/O	BI EXT D13	161	O	OP EXT A0
6	O	OP TBUS0	58	I	IP TBUS14	110	I/O	BI EXT D12	162	I	IP IH
7	I	MMS 0	59	I	IP TBUS15	111	I/O	BI EXT D11	163	—	NC
8	I	MMS 1	60	—	GND	112	I/O	BI EXT D10	164	—	GND
9	I	MMS 2	61	—	VDD	113	O	VS1 3	165	—	VDD
10	—	VDD	62	I	IP TBUS16	114	—	VDD	166	O	OP VID7
11	I	MST	63	I	IP TBUS17	115	I/O	BI EXT D9	167	O	OP VID6
12	I	SM	64	I	IP TOMX0	116	I/O	BI EXT D8	168	O	OP VID5
13	I	SMCK	65	I	IP TOMX1	117	I/O	BI EXT D7	169	O	OP VID4
14	I	SDI	66	I	IP TSEL0	118	I	VREF IN	170	O	VS1 6
15	—	GND	67	I	IP TSEL1	119	—	GND	171	O	VD2 7
16	O	SDO	68	I	IP TSEL2	120	O	VD2 3	172	O	OP VID3
17	I	MMS 3	69	I	IP TSEL3	121	I/O	BI EXT D6	173	O	OP VID2
18	I	VPD	70	I	IP TSEL4	122	I/O	BI EXT D5	174	O	OP VID1
19	—	VDD	71	O	OP PLLFF	123	—	VDD	175	O	OP VID0
20	I	MMS 4	72	—	GND	124	O	VS1 4	176	—	GND
21	—	NC	73	—	VDD	125	I/O	BI EXT D4	177	—	VDD
22	I	IP CS	74	O	OP LOCK	126	I/O	BI EXT D3	178	O	OP QI1
23	I	IP STRB	75	I	IP LOFFSEL	127	I/O	BI EXT D2	179	O	OP QI0
24	I	IP STAT0	76	O	OP SEL	128	I/O	BI EXT D1	180	O	OP H SYNC
25	I	IP STAT1	77	I	IP SEL	129	I/O	BI EXT D0	181	—	NC
26	—	GND	78	I	CLK TST0	130	—	GND	182	O	VS1 7
27	—	VDD	79	—	VDD	131	—	VDD	183	—	VDD
28	—	NC	80	I	CLR SYS	132	O	DIR OUT	184	O	OP TBUS20
29	I/O	BI SYSIO0	81	O	VS1 1	133	I	DIR IN	185	O	OP TBUS19
30	I/O	BI SYSIO1	82	I	CK VID	134	O	VD2 4	186	O	OP TBUS18
31	I/O	BI SYSIO2	83	O	VS1 PLL	135	I/O	IP EXT CLK	187	O	OP TBUS17
32	I/O	BI SYSIO3	84	O	VD1 PLL	136	O	VS1 5	188	O	VD1 8
33	I/O	BI SYSIO4	85	—	GND	137	O	IP EXT DQM	189	—	GND
34	—	VDD	86	—	VDD	138	—	VDD	190	—	VDD
35	I/O	BI SYSIO5	87	I	CLK TST1	139	O	IP EXT WE	191	O	OP TBUS16
36	I/O	BI SYSIO6	88	O	VD1 1	140	O	VD2 5	192	O	OP TBUS15
37	I/O	BI SYSIO7	89	—	NC	141	O	OP EXT CK	193	O	OP TBUS14
38	—	GND	90	I	IP F0 F1	142	—	GND	194	O	OP TBUS13
39	I	IP TEN	91	I	IP FRM P	143	O	OP EXT CAS	195	O	VS1 8
40	I	IP TIMX0	92	I	IP SYNC	144	O	OP EXT RAS	196	O	OP TBUS12
41	I	IP TIMX1	93	I	IP CERR	145	O	OP EXT CS2	197	O	OP TBUS11
42	I	IP TBUS0	94	I	IP CVID0	146	O	OP EXT CS1	198	O	OP TBUS10
43	—	VDD	95	I	IP CVID1	147	—	VDD	199	O	OP TBUS9
44	I	IP TBUS1	96	—	GND	148	O	OP EXT A11	200	—	GND
45	I	IP TBUS2	97	—	VDD	149	O	OP EXT A10	201	—	VDD
46	I	IP TBUS3	98	I	IP CVID2	150	O	OP EXT A9	202	O	OP TBUS8
47	I	IP TBUS4	99	I	IP CVID3	151	O	OP EXT A8	203	O	OP TBUS7
48	I	IP TBUS5	100	I	IP CVID4	152	O	OP EXT A7	204	O	OP TBUS6
49	I	IP TBUS6	101	I	IP CVID5	153	O	OP EXT A6	205	O	OP TBUS5
50	—	GND	102	I	IP CVID6	154	—	GND	206	O	OP TBUS4
51	I	IP TBUS7	103	I	IP CVID7	155	O	OP EXT A5	207	O	VD2 9
52	I	IP TBUS8	104	O	VS1 2	156	O	OP EXT A4	208	O	VS1 9

CXD9100R (FUJITSU)

VITC GENERATOR AND COMPOSITE ENCODER

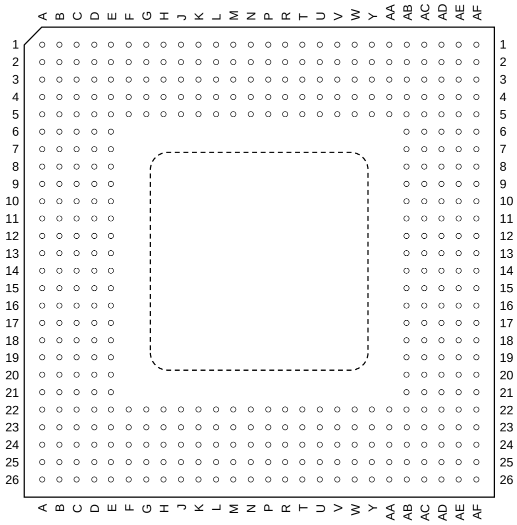
—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	CSOUT	65	O	PBCF 1	129	O	CMPST 2	193	O	CMPB 5
2	—	Vcc	66	O	PBCF 0	130	O	CMPST 1	194	O	CMPB 4
3	O	D1HD	67	—	Vcc	131	O	CMPST 0	195	O	CMPB 3
4	I/O	BGATE	68	O	VISC 9	132	—	Vcc	196	O	CMPB 2
5	—	GND	69	O	VISC 8	133	—	GND	197	O	CMPB 1
6	—	Vcc	70	O	VISC 7	134	—	Vcc	198	O	CMPB 0
7	I	IVD 9	71	O	VISC 6	135	I	ROMSEL 01	199	—	Vcc
8	I	IVD 8	72	—	GND	136	I/O	WRADRR	200	—	GND
9	I	IVD 7	73	—	Vcc	137	I/O	RDADDR	201	O	G SAV
10	I	IVD 6	74	—	Vcc	138	O	D2SYNC	202	—	Vcc
11	I	IVD 5	75	I	AVD0	139	O	CLAMP	203	I/O	D CF
12	I	IVD 4	76	I	VREF0	140	O	F4HD	204	I	TMOD 2
13	I	IVD 3	77	O	VRO0	141	O	CMPY 9	205	I	TMOD 1
14	I	IVD 2	78	O	AOUT0	142	O	CMPY 8	206	I	TMOD 0
15	I	IVD 1	79	I	AVS0	143	O	CMPY 7	207	—	VCC
16	I	IVD 0	80	I	AVD1	144	O	CMPY 6	208	I	VSCCY
17	I	RESET	81	I	VREF1	145	O	CMPY 5	209	I	BBCPST
18	—	GND	82	O	VRO1	146	—	GND	210	I	START
19	—	Vcc	83	O	AOUT1	147	—	Vcc	211	I	SCK
20	I	PFILON	84	I	AVS1	148	O	CMPY 4	212	—	GND
21	I	IHD	85	I	AVD2	149	O	CMPY 3	213	—	Vcc
22	I	INVD	86	I	VREF2	150	O	CMPY 2	214	I	SIN
23	I	ISVI	87	O	VRO2	151	O	CMPY 1	215	I	HRTH
24	—	GND	88	O	AOUT2	152	O	CMPY 0	216	I	STRB
25	—	Vcc	89	I	AVS2	153	—	Vcc	217	I	CS
26	I	CADDR 2	90	—	GND	154	O	CMPR 9	218	O	VSOUT
27	I	CADDR 1	91	O	VISC 5	155	O	CMPR 8	219	I/O	REND
28	I	CADDR 0	92	—	Vcc	156	O	CMPR 7	220	I/O	OSVI
29	I	ICF	93	O	VISC 4	157	O	CMPR 6	221	I/O	RVITC
30	I	IPA	94	O	VISC 3	158	O	CMPR 5	222	I/O	RLTCH
31	I	CK27	95	O	VISC 2	159	O	CMPR 4	223	I/O	GVITC
32	—	GND	96	—	GND	160	—	GND	224	—	GND
33	I	VLPARA	97	—	Vcc	161	O	CMPR 3	225	—	Vcc
34	I	TCK	98	O	VISC 1	162	O	CMPR 2	226	I/O	R FM
35	I	TMS	99	O	VISC 0	163	O	CMPR 1	227	O	DPARITY
36	I	TRST	100	—	NC	164	O	CMPR 0	228	I	VADRS 3
37	I	TDI	101	I	ROMSEL10	165	I/O	HMSK	229	I	VADRS 2
38	O	TDO	102	I	PALNTSC	166	I/O	R ERR	230	I	VADRS 1
39	I/O	R CF	103	I	TEST	167	O	BUSY	231	I	VADRS 0
40	—	Vcc	104	I	PD0	168	—	Vcc	232	I	STAT 1
41	O	BBST 9	105	I	PD1	169	O	DDATA 9	233	I	STAT 0
42	O	BBST 8	106	I	PD2	170	O	DDATA 8	234	I	LPARA
43	O	BBST 7	107	I	CK8FSC	171	O	DDATA 7	235	I	CPUCLK
44	O	BBST 6	108	—	GND	172	O	DDATA 6	236	—	GND
45	O	BBST 5	109	—	Vcc	173	O	DDATA 5	237	—	Vcc
46	—	GND	110	I	REF CF	174	—	GND	238	I	CADRS 3
47	—	Vcc	111	I	REFVD	175	—	Vcc	239	I	CADRS 2
48	O	BBST 4	112	I	REFHD	176	O	DDATA 4	240	I	CADRS 1
49	O	BBST 3	113	I	CMUTE	177	O	DDATA 3	241	I	CADRS 0
50	O	BBST 2	114	—	Vcc	178	O	DDATA 2	242	—	Vcc
51	O	BBST 1	115	O	DOUT	179	O	DDATA 1	243	I/O	CPUBUS 7
52	O	BBST 0	116	O	HSHIFT	180	O	DDATA 0	244	I/O	CPUBUS 6
53	I/O	VGATE	117	—	Vcc	181	I/O	VMASK	245	I/O	CPUBUS 5
54	I/O	XCFI	118	O	VSHIFT	182	O	WCK4FSC	246	—	Vcc
55	I/O	NT4F	119	—	GND	183	O	DDCF 2	247	—	GND
56	I/O	PL4F	120	O	CK4FSC	184	O	DDCF 1	248	I/O	CPUBUS 4
57	I/O	PL8F	121	—	Vcc	185	O	DDCF 0	249	—	Vcc
58	—	Vcc	122	O	CMPST 9	186	—	Vcc	250	I/O	CPUBUS 3
59	—	GND	123	O	CMPST 8	187	—	GND	251	I/O	CPUBUS 2
60	—	Vcc	124	O	CMPST 7	188	—	Vcc	252	I/O	CPUBUS 1
61	O	REFCF 2	125	O	CMPST 6	189	O	CMPB 9	253	I/O	CPUBUS 0
62	O	REFCF 1	126	O	CMPST 5	190	O	CMPB 8	254	I/O	CK135
63	O	REFCF 0	127	O	CMPST 4	191	O	CMPB 7	255	I/O	IFBUSY
64	O	PBCF 2	128	O	CMPST 3	192	O	CMPB 6	256	I/O	RINIT

CXD9092GB (FUJITSU)

DOWN CONVERTER
—BOTTOM VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
A1	—	GND	AC26	O	SUB5	H2	—	NC	M25	O	R7	AC3	—	NC	C14	O	TDO	W23	—	NC	AB7	—	GND
B1	I	Y0	AB26	O	SUB3	J2	—	NC	L25	O	R4	AD3	—	NC	C13	—	NC	V23	—	NC	AB8	—	GND
C1	I	Y1	AA26	O	SUB1	K2	—	NC	K25	O	R1	AD4	I	SDA	C12	—	NC	U23	—	NC	AB9	—	Vcc
D1	I	Y2	Y26	O	MAIN9	L2	O	OPCK27 FB	J25	—	NC	AD5	I/O	SDRAMD4	C11	—	NC	T23	—	NC	AB10	—	Vcc
E1	I	Y3	W26	O	MAIN7	M2	I	CK 27 SEL	H25	O	G7	AD6	I/O	SDRAMD7	C10	—	NC	R23	—	NC	AB11	—	GND
F1	I	Y4	V26	O	MAIN5	N2	I	CK 27 TEST	G25	O	G4	AD7	I/O	SDRAMD10	C9	—	NC	P23	—	NC	AB12	—	Vcc
G1	I	Y5	U26	O	MAIN3	P2	I	CK 74 SEL	F25	O	G1	AD8	I/O	SDRAMD13	C8	—	NC	N23	—	NC	AB13	—	Vcc
H1	I	Y6	T26	O	MAIN1	R2	I	CK 74 TEST	E25	O	B8	AD9	I/O	SDRAMD16	C7	O	TSDO1	M23	—	NC	AB14	—	Vcc
J1	I	Y7	R26	O	SDSKIN	T2	O	OPCK74 FB	D25	O	B5	AD10	I/O	SDRAMD19	C6	—	NC	L23	—	NC	AB15	—	Vcc
K1	I	Y8	P26	O	CK	U2	—	NC	C25	O	B2	AD11	I/O	SDRAMD22	C5	—	NC	K23	—	NC	AB16	—	GND
L1	I	Y9	N26	O	R9	V2	—	NC	B25	O	MON8	AD12	I/O	SDRAMD25	C4	—	NC	J23	—	NC	AB17	—	Vcc
M1	I	CK27	M26	O	R8	W2	—	NC	B24	O	MON6	AD13	I/O	SDRAMD28	D4	—	NC	H23	—	NC	AB18	—	Vcc
N1	—	Vcc	L26	O	R5	Y2	—	NC	B23	O	MON4	AD14	I/O	SDRAMD31	E4	—	NC	G23	—	NC	AB19	—	GND
P1	—	Vcc	K26	O	R2	AA2	—	NC	B22	O	MON2	AD15	O	SDRAMA2	F4	—	NC	F23	—	Vcc	AB20	—	NC
R1	I	CK74	J26	O	G9	AB2	—	NC	B21	O	MON0	AD16	O	SDRAMA5	G4	—	NC	E23	—	NC	AB21	—	Vcc
T1	I	C0	H26	O	G8	AC2	—	NC	B20	I	SYIO7	AD17	O	SDRAMA8	H4	—	NC	D23	—	NC	AB22	—	GND
U1	I	C1	G26	O	G5	AD2	—	NC	B19	I	SYIO6	AD18	O	SDRAMA11	J4	—	NC	D22	—	NC	AA22	—	Vcc
V1	I	C2	F26	O	G2	AE2	I/O	VPD	B18	I	SYIO5	AD19	O	SDRAM RAS	K4	—	NC	D21	—	NC	Y22	—	NC
W1	I	C3	E26	O	B9	AE3	—	NC	B17	I	SYIO4	AD20	O	SDRAM WE	L4	—	Vcc	D20	—	NC	W22	—	GND
Y1	I	C4	D26	O	B6	AE4	I/O	SDRAMD1	B16	I	SID2	AD21	O	SDRAM MSK0	M4	—	NC	D19	—	NC	V22	—	Vcc
AA1	I	C5	C26	O	B3	AE5	I/O	SDRAMD3	B15	I	SID1	AD22	O	SDRAM MSK3	N4	—	Vcc	D18	—	NC	U22	—	Vcc
AB1	I	C6	B26	O	B0	AE6	I/O	SDRAMD6	B14	I	SID0	AD23	—	NC	P4	—	Vcc	D17	—	GND	T22	—	GND
AC1	I	C7	A26	—	GND	AE7	I/O	SDRAMD9	B13	—	NC	AD24	—	NC	R4	—	NC	D16	—	Vcc	R22	—	Vcc
AD1	I	C8	A25	O	MON9	AE8	I/O	SDRAMD12	B12	—	NC	AC24	—	NC	T4	—	NC	D15	—	NC	P22	—	Vcc
AE1	I	C9	A24	O	MON7	AE9	I/O	SDRAMD15	B11	I	SDI3	AB24	—	NC	U4	—	NC	D14	—	NC	N22	—	NC
AF1	—	GND	A23	O	MON5	AE10	I/O	SDRAMD18	B10	—	NC	AA24	O	TSDO2	V4	—	NC	D13	O	SDO1	M22	—	Vcc
AF2	—	NC	A22	O	MON3	AE11	I/O	SDRAMD21	B9	—	NC	Y24	—	NC	W4	I	TSDI2	D12	—	NC	L22	—	GND
AF3	—	Vcc	A21	O	MON1	AE12	I/O	SDRAMD24	B8	—	NC	W24	—	NC	Y4	—	NC	D11	—	NC	K22	—	Vcc
AF4	I/O	SDRAMD0	A20	I	SYIO3	AE13	I/O	SDRAMD27	B7	—	NC	V24	O	SDO3	AA4	—	NC	D10	—	NC	J22	—	Vcc
AF5	I/O	SDRAMD2	A19	I	SYIO2	AE14	I/O	SDRAMD30	B6	—	NC	U24	—	NC	AB4	—	NC	D9	—	NC	H22	—	GND
AF6	I/O	SDRAMD5	A18	I	SYIO1	AE15	O	SDRAMA1	B5	—	NC	T24	—	NC	AC4	—	NC	D8	—	NC	G22	—	GND
AF7	I/O	SDRAMD8	A17	I	SYIO0	AE16	O	SDRAMA4	B4	—	NC	R24	—	NC	AC5	—	NC	D7	—	NC	F22	—	Vcc
AF8	I/O	SDRAMD11	A16	I	STAT1	AE17	O	SDRAMA7	B3	—	NC	P24	O	TSDO3	AC6	—	NC	D6	—	NC	E22	—	GND
AF9	I/O	SDRAMD14	A15	I	STAT0	AE18	O	SDRAMA10	C3	—	NC	N24	—	NC	AC7	—	NC	D5	—	NC	E21	—	Vcc
AF10	I/O	SDRAMD17	A14	I	STRB	AE19	—	NC	D3	—	NC	M24	O	R6	AC8	—	NC	E5	—	GND	E20	—	NC
AF11	I/O	SDRAMD20	A13	I	SCONSEL	AE20	O	SDRAM CS	E3	—	NC	L24	O	R3	AC9	—	NC	F5	—	Vcc	E19	—	GND
AF12	I/O	SDRAMD23	A12	I	SCL	AE21	O	SDRAM CKE	F3	—	NC	K24	O	R0	AC10	—	Vcc	G5	—	NC	E18	—	Vcc
AF13	I/O	SDRAMD26	A11	I	PCONSEL	AE22	O	SDRAM MSK2	G3	—	NC	J24	—	NC	AC11	—	Vcc	H5	—	GND	E17	—	Vcc
AF14	I/O	SDRAMD29	A10	I	CS	AE23	—	NC	H3	I	TSDI1	H24	O	G6	AC12	—	NC	J5	—	Vcc	E16	—	GND
AF15	O	SDRAMA0	A9	I	CLR SYS	AE24	—	NC	J3	—	NC	G24	O	G3	AC13	—	NC	K5	—	Vcc	E15	—	Vcc
AF16	O	SDRAMA3	A8	I	SD H	AE25	O	SUB8	K3	I	SDI1	F24	O	G0	AC14	—	NC	L5	—	GND	E14	—	Vcc
AF17	O	SDRAMA6	A7	I	SD F	AD25	O	SUB6	L3	O	OPCK27 TEST	E24	O	B7	AC15	—	NC	M5	—	Vcc	E13	—	NC
AF18	O	SDRAMA9	A6	I	HD H	AC25	O	SUB4	M3	I	SDI2	D24	O	B4	AC16	—	GND	N5	—	Vcc	E12	—	Vcc
AF19	O	SDRAMA12	A5	I	HD F	AB25	O	SUB2	N3	—	GND	C24	O	B1	AC17	—	Vcc	P5	—	NC	E11	—	GND
AF20	O	SDRAM CAS	A4	I	SDBKGD	AA25	O	SUB0	P3	—	GND	C23	I	TSDI3	AC18	—	NC	R5	—	Vcc	E10	—	Vcc
AF21	O	SDRAM CK	A3	I	SDCHAR	Y25	O	MAIN8	R3	—	NC	C22	—	NC	AC19	—	NC	T5	—	GND	E9	—	Vcc
AF22	O	SDRAM MSK1	A2	I	HDSKIN	W25	O	MAIN6	T3	O	OPCK74 TEST	C21	—	NC	AC20	—	NC	U5	—	Vcc	E8	—	GND
AF23	—	NC	B2	—	NC	V25	O	MAIN4	U3	—	NC	C20	—	NC	AC21	—	NC	V5	—	Vcc	E7	—	NC
AF24	—	NC	C2	—	NC	U25	O	MAIN2	V3	—	NC	C19	—	NC	AC22	—	NC	W5	—	GND	E6	—	Vcc
AF25	—	NC	D2	—	NC	T25	O	MAIN0	W3	—	NC	C18	I	TDI	AC23	—	NC	Y5	—	NC			
AF26	—	GND	E2	—	NC	R25	O	OH	Y3	—	NC	C17	I	TMS	AB23	—	NC	AA5	—	Vcc			
AE26	O	SUB9	F2	—	NC	P25	O	OV	AA3	—	NC	C16	I	TRST	AA23	O	SDO2	AB5	—	GND			
AD26	O	SUB7	G2	—	NC	N25	O	OF	AB3	—	NC	C15	I	TCK	Y23	—	NC	AB6	—	Vcc			

INPUTS

C0 - C9	: COLOR DIFFERENCE DATA BUS
CK27	: 27 MHz CLOCK
CK 27 SEL, CK 27 TEST	: TEST FOR INTERNAL VCO (54 MHz)
CK74	: 74.25 TO 61.875 MHz CLOCK
CK 74 SEL, CK 74 TEST	: TEST FOR INTERNAL VCO (74.25 MHz)
CLR SYS	: ASYNCHRONOUS SYSTEM RESET
CS	: CHIP SELECT
HD F	: EXTERNAL 1125 HD FIELD SIGNAL
HD H	: EXTERNAL 1125 HD HORIZONTAL BLANKING SIGNAL
HDSKIN	: HD SKIN SIGNAL
PCONSEL	: PARALLEL CONTROL SELECT
SCL	: SERIAL CLOCK
SCONSEL	: SERIAL CONTROL SELECT
SD H	: EXTERNAL 525 OR 625 HORIZONTAL SYNC
SD F	: EXTERNAL 525 OR 625 FIELD SYNC
SDA	: SERIAL DATA
SDBKGD	: SD BACKGROUND KEY SOURCE FOR MONITOR OUTPUT
SDCHAR	: SD CHARACTER KEY SOURCE FOR MONITOR OUTPUT
SDI1 - SDI3	: DEVICE ADDRESS
SID0 - SID2	: DEVICE ADDRESS
STAT0, STAT1	: BUS STATUS
STRB	: STROBE
SYIO0 - SYIO7	: MULTIPLEXED PARALLEL CONTROL
TCK	: BOUNDARY SCAN CLOCK
TDI	: BOUNDARY SCAN DATA
TMS	: BOUNDARY SCAN MODE SELECT
TRST	: BOUNDARY SCAN RESET
TSDI1 - TSDI3	: RAM SCAN
Y0 - Y9	: LUMINANCE DATA BUS

OUTPUTS

B0 - B9	: BLUE VIDEO DATA BUS
CK	: 27 OR 54 MHz OUTPUT CLOCK
G0 - G9	: GREEN VIDEO DATA BUS
MAIN0 - MAIN9	: MAIN MULTIPLEXED GBR/Y CbCr
MON0 - MON9	: MONITOR MULTIPLEXED GBR/Y CbCr
OF	: 525 OR 625 F SYNC
OH	: 525 OR 625 H SYNC
OPCK27 FB, OPCK27 TEST	: TEST FOR INTERNAL VCO (54 MHz)
OPCK74 FB, OPCK74 TEST	: TEST FOR INTERNAL VCO (74.25 MHz)
OV	: 525 OR 625 V SYNC
R0 - R9	: RED VIDEO DATA BUS
SDO1 - SDO3	: SCAN DATA
SDRAM CAS	: EXTERNAL SDRAM CAS CONTROL
SDRAM CK	: EXTERNAL SDRAM CLOCK
SDRAM CKE	: EXTERNAL SDRAM CLOCK ENABLE
SDRAM CS	: EXTERNAL SDRAM CHIP SELECT
SDRAM MSK0 - SDRAM MSK3	: EXTERNAL SDRAM INPUT MASK
SDRAM RAS	: EXTERNAL SDRAM RAS CONTROL
SDRAM WE	: EXTERNAL SDRAM WRITE ENABLE
SDRAMA0 - SDRAMA12	: EXTERNAL SDRAM ADDRESS BUS
SDSKIN	: SD SKIN SIGNAL
SUB0 - SUB9	: SUB MULTIPLEXED GBR/Y CbCr
TDO	: BOUNDARY SCAN DATA
TSDO1 - TSDO3	: RAM SCAN

INPUTS/OUTPUTS

SDRAMD0 - SDRAMD31	: EXTERNAL SDRAM DATA BUS
VPD	: PENETRATION ELECTRIC CURRENT PREVENTION CELL

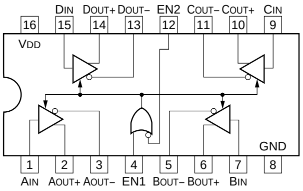
OTHER

NC	: NO CONNECTION

DS90LV031ATMX (NS)

C-MOS QUAD DIFFERENTIAL LINE DRIVER

—TOP VIEW—



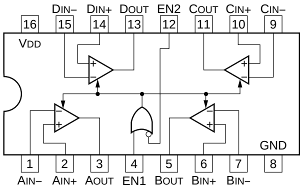
INPUTS			OUTPUTS	
EN2	EN1	IN	+	−
1	0	×	HI-Z	HI-Z
ALL OTHER COMBINATIONS OF ENABLE INPUTS		L	L	H
		H	H	L

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE

DS90LV032ATMX (NS)

C-MOS QUAD DIFFERENTIAL LINE RECEIVER

—TOP VIEW—



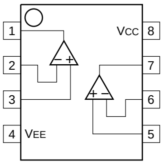
INPUTS			OUTPUTS
EN2	EN1	IN+ - IN−	OUT
1	0	×	HI-Z
ALL OTHER COMBINATIONS OF ENABLE INPUTS		$V_{ID} \geq 0.1V$	1
		$V_{ID} \leq -0.1V$	0
		FULL FAILSAFE OPEN/SHORT OR TERMINATED	1

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE

EL2244CS (ELANTEC)
EL2244CS-TE2
LM358PS (TI)
LM358PSR
NJM2904M (JRC)
NJM2904M(TE2)

DUAL OPERATIONAL AMPLIFIERS
(SINGLE-SUPPLY TYPE)

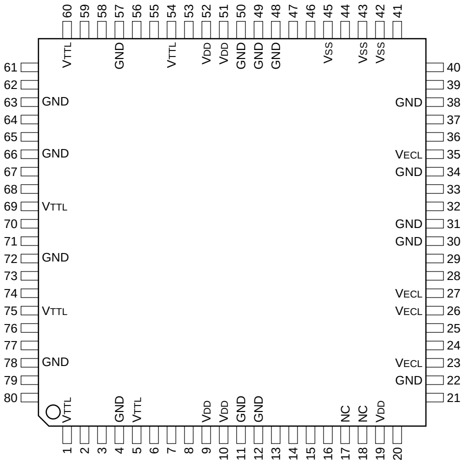
—TOP VIEW—

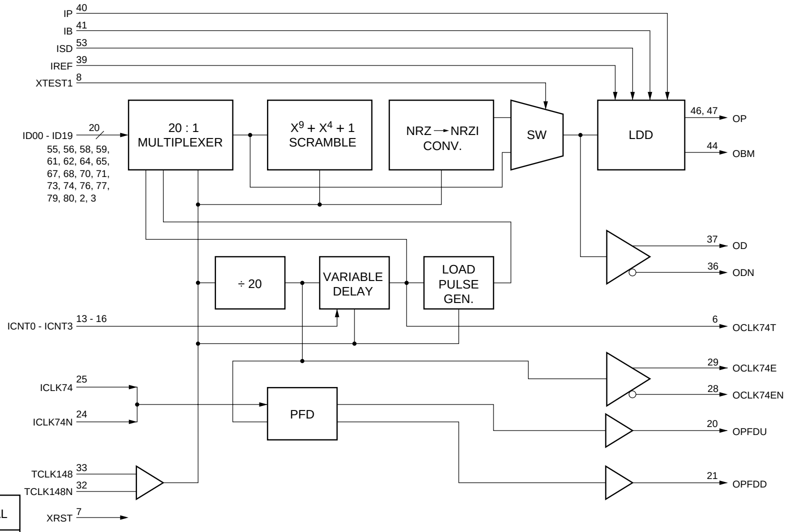


CXG8003Q (SONY)

1.5 Gbps TRANSMITTER

—TOP VIEW—


60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
VTTL GND VTTL VDD VDD GND GND GND VSS VSS VSS
61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
GND GND VTTL GND VTTL GND
40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21
GND VECL GND GND GND VECL VECL VECL GND
VTTL GND VTTL VDD VDD GND GND NC NC VDD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20


IP 40
IB 41
ISD 53
IREF 39
XTEST1 8
ID00 - ID19 20
55, 56, 58, 59, 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76, 77, 79, 80, 2, 3
20 : 1 MULTIPLEXER
X9 + X4 + 1 SCRAMBLE
NRZ → NRZI CONV.
SW
LDD
46, 47 OP
44 OBM
37 OD
36 ODN
÷ 20
VARIABLE DELAY
LOAD PULSE GEN.
ICNT0 - ICNT3 13 - 16
6 OCLK74T
ICLK74 25
ICLK74N 24
PFD
29 OCLK74E
28 OCLK74EN
20 OPFDU
TCLK148 33
TCLK148N 32
21 OPFDD
XRST 7

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	VTTL	21	O	OPFDD	41	I	IB	61	I	ID04
2	I	ID18	22	—	GND	42	—	VSS	62	I	ID05
3	I	ID19	23	—	VECL	43	—	VSS	63	—	GND
4	—	GND	24	I	ICLK74N	44	O	OBM	64	I	ID06
5	—	VTTL	25	I	ICLK74	45	—	VSS	65	I	ID07
6	O	OCLK74T	26	—	VECL	46	O	OP	66	—	GND
7	I	XRST	27	—	VECL	47	O	OP	67	I	ID08
8	I	XTEST1	28	O	OCLK74EN	48	—	GND	68	I	ID09
9	—	VDD	29	O	OCLK74E	49	—	GND	69	—	VTTL
10	—	VDD	30	—	GND	50	—	GND	70	I	ID10
11	—	GND	31	—	GND	51	—	VDD	71	I	ID11
12	—	GND	32	I	TCLK148N	52	—	VDD	72	—	GND
13	I	ICNT0	33	I	TCLK148	53	I	ISD	73	I	ID12
14	I	ICNT1	34	—	GND	54	—	VTTL	74	I	ID13
15	I	ICNT2	35	—	VECL	55	I	ID00	75	—	VTTL
16	I	ICNT3	36	O	ODN	56	I	ID01	76	I	ID14
17	—	NC	37	O	OD	57	—	GND	77	I	ID15
18	—	NC	38	—	GND	58	I	ID02	78	—	GND
19	—	VDD	39	I	IREF	59	I	ID03	79	I	ID16
20	O	OPFDU	40	I	IP	60	—	VTTL	80	I	ID17

INPUTS

IB : LD DRIVER BIAS CURRENT CONTROL
ICLK74 : PLL REFERENCE CLOCK (74.25 MHz)
ICLK74N : INVERTED PLL REFERENCE CLOCK (74.25 MHz)
ICNT0 - ICNT3 : PARALLEL CLOCK DELAY CONTROL
ID00 - ID19 : 20 BITS PARALLEL SIGNAL
IP : LD DRIVER PEAK CURRENT CONTROL
IREF : LD DRIVER DUTY CONTROL
ISD : LD DRIVER OUTPUT CONTROL
TCLK148 : EXTERNAL CLOCK (1.485 GHz)
TCLK148N : INVERTED EXTERNAL CLOCK (1.485 GHz)
XRST : RESET
XTEST1 : SCRAMBLE/NRZ TO NRZI CONVERSION CONTROL

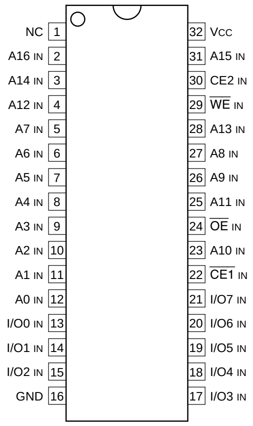
OUTPUTS

OBM : LD DRIVER BIAS CURRENT MONITOR
OCLK74E : 74.25 MHz PARALLEL CLOCK (ECL LEVEL)
OCLK74EN : INVERTED 74.25 MHz PARALLEL CLOCK (ECL LEVEL)
OCLK74T : 74.25 MHz PARALLEL CLOCK (LVTTL LEVEL)
OD : 1.485 Gbps SERIAL DATA
ODN : INVERTED 1.485 Gbps SERIAL DATA
OP : LD DRIVER PEAK CURRENT
OPFDD : LOWER SIDE OF THE PHASE COMPARATOR (PFD)
OPFDU : UPPER SIDE OF THE PHASE COMPARATOR (PFD)

CY62128-70SC-T2 (CYPRESS)

1M (128K×8)-BIT SRAM

—TOP VIEW—


NC 1
A16 IN 2
A14 IN 3
A12 IN 4
A7 IN 5
A6 IN 6
A5 IN 7
A4 IN 8
A3 IN 9
A2 IN 10
A1 IN 11
A0 IN 12
I/O0 IN 13
I/O1 IN 14
I/O2 IN 15
GND 16
32 VCC
31 A15 IN
30 CE2 IN
29 WE IN
28 A13 IN
27 A8 IN
26 A9 IN
25 A11 IN
24 OE IN
23 A10 IN
22 CE1 IN
21 I/O7 IN
20 I/O6 IN
19 I/O5 IN
18 I/O4 IN
17 I/O3 IN

INPUTS

A0 - A16 : ADDRESS
$\overline{\text{CE1}}$, CE2 : CHIP ENABLE
$\overline{\text{OE}}$: OUTPUT ENABLE
$\overline{\text{WE}}$: WRITE ENABLE

INPUTS/OUTPUTS

I/O0 - I/O7 : DATA

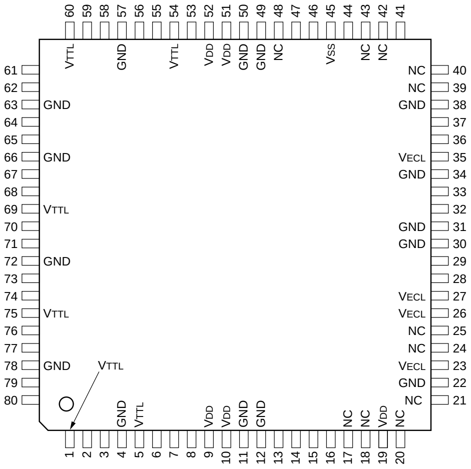
OTHER

NC : NO CONNECTION

CXG8004Q (SONY)

1.5 Gbps RECEIVER

—TOP VIEW—


60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
VTTL
GND
VTTL
VDD
VDD
GND
GND
NC
VSS
NC
NC
61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
GND
GND
VTTL
GND
VTTL
GND
VTTL
NC 40
NC 39
GND 38
37
36
VECL 35
GND 34
33
32
GND 31
GND 30
29
28
VECL 27
VECL 26
NC 25
NC 24
VECL 23
GND 22
NC 21
GND
VTTL
VDD
VDD
GND
GND
NC
NC
VDD
NC
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

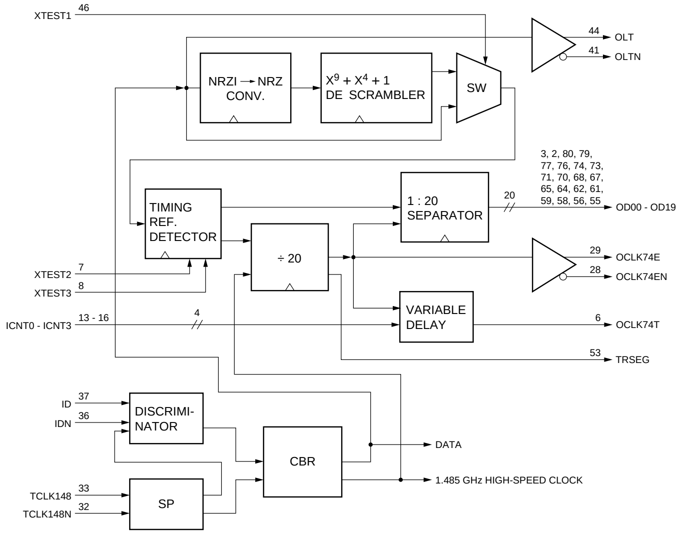
INPUTS

ICNT0 - ICNT3 : PARALLEL CLOCK DELAY CONTROL
ID : 1.485 Gbps SERIAL DATA
IDN : INVERTED 1.485 Gbps SERIAL DATA
TCLK148 : EXTERNAL CLOCK (1.485 GHz)
TCLK148N : INVERTED EXTERNAL CLOCK (1.485 GHz)
XRST : RESET
XTEST1 : NRZI → NRZ CONVERSION AND DESCRAMBLER CONTROL
XTEST2 : TRS DETECTOR CONTROL
XTEST3 : CH/YH FLAG DETECTOR CONTROL

OUTPUTS

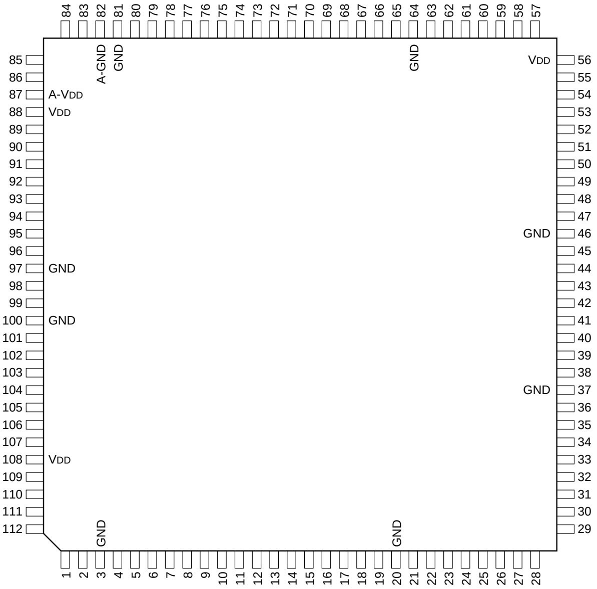
OD00 - OD19 : 20 BITS PARALLEL SIGNAL
OCLK74E : 74.25 MHz PARALLEL CLOCK (ECL LEVEL)
OCLK74EN : INVERTED 74.25 MHz PARALLEL CLOCK (ECL LEVEL)
OCLK74T : 4.25 MHz PARALLEL CLOCK (LVTTL LEVEL)
OLT : RETIMING DATA OF DISCRIMINATOR
OLTN : INVERTED DATA OF DISCRIMINATOR
TRSFG : TRS DETECTOR

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	VTTL	21	—	NC	41	O	OLTN	61	O	OD15
2	O	OD01	22	—	GND	42	—	NC	62	O	OD14
3	O	OD00	23	—	VECL	43	—	NC	63	—	GND
4	—	GND	24	—	NC	44	O	OLT	64	O	OD13
5	—	VTTL	25	—	NC	45	—	VSS	65	O	OD12
6	O	OCLK74T	26	—	VECL	46	I	XTEST1	66	—	GND
7	I	XTEST2	27	—	VECL	47	I	XRST	67	O	OD11
8	I	XTEST3	28	O	OCLK74EN	48	—	NC	68	O	OD10
9	—	VDD	29	O	OCLK74E	49	—	GND	69	—	VTTL
10	—	VDD	30	—	GND	50	—	GND	70	O	OD09
11	—	GND	31	—	GND	51	—	VDD	71	O	OD08
12	—	GND	32	I	TCLK148N	52	—	VDD	72	—	GND
13	I	ICNT0	33	I	TCLK148	53	O	TRSFG	73	O	OD07
14	I	ICNT1	34	—	GND	54	—	VTTL	74	O	OD06
15	I	ICNT2	35	—	VECL	55	O	OD19	75	—	VTTL
16	I	ICNT3	36	I	IDN	56	O	OD18	76	O	OD05
17	—	NC	37	I	ID	57	—	GND	77	O	OD04
18	—	NC	38	—	GND	58	O	OD17	78	—	GND
19	—	VDD	39	—	NC	59	O	OD16	79	O	OD03
20	—	NC	40	—	NC	60	—	VTTL	80	O	OD02

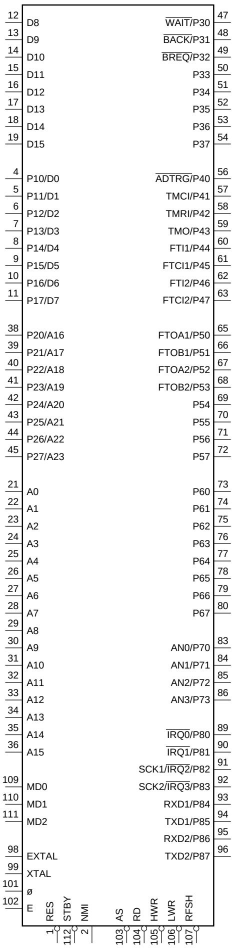

XTEST1
46
NRZI → NRZ CONV.
X9 + X4 + 1 DE SCRAMBLER
SW
44 OLT
41 OLTN
3, 2, 80, 79, 77, 76, 74, 73, 71, 70, 68, 67, 65, 64, 62, 61, 59, 58, 56, 55
TIMING REF. DETECTOR
1 : 20 SEPARATOR
20
OD00 - OD19
÷ 20
29 OCLK74E
28 OCLK74EN
XTEST2 7
XTEST3 8
ICNT0 - ICNT3 13 - 16
4
VARIABLE DELAY
6 OCLK74T
53 TRSEG
ID 37
IDN 36
DISCRIMI-NATOR
CBR
DATA
1.485 GHz HIGH-SPEED CLOCK
TCLK148 33
TCLK148N 32
SP

HD6415108RF10 (HITACHI)

C-MOS 16-BIT MICROCOMPUTER UNIT
—TOP VIEW—



PIN NO.	EXPANSION MINIMUM MODE				EXPANSION MAXIMUM MODE			
	MODE 1		MODE 2		MODE 3		MODE 4	
	I/O	SIGNAL	I/O	SIGNAL	I/O	SIGNAL	I/O	SIGNAL
1	I/O	$\overline{\text{RES}}$	I/O	$\overline{\text{RES}}$	I/O	$\overline{\text{RES}}$	I/O	$\overline{\text{RES}}$
2	I	NMI	I	NMI	I	NMI	I	NMI
3	—	GND	—	GND	—	GND	—	GND
4	I/O	P10	I/O	D0	I/O	P10	I/O	D0
5	I/O	P11	I/O	D1	I/O	P11	I/O	D1
6	I/O	P12	I/O	D2	I/O	P12	I/O	D2
7	I/O	P13	I/O	D3	I/O	P13	I/O	D3
8	I/O	P14	I/O	D4	I/O	P14	I/O	D4
9	I/O	P15	I/O	D5	I/O	P15	I/O	D5
10	I/O	P16	I/O	D6	I/O	P16	I/O	D6
11	I/O	P17	I/O	D7	I/O	P17	I/O	D7
12	I/O	D8	I/O	D8	I/O	D8	I/O	D8
13	I/O	D9	I/O	D9	I/O	D9	I/O	D9
14	I/O	D10	I/O	D10	I/O	D10	I/O	D10
15	I/O	D11	I/O	D11	I/O	D11	I/O	D11
16	I/O	D12	I/O	D12	I/O	D12	I/O	D12
17	I/O	D13	I/O	D13	I/O	D13	I/O	D13
18	I/O	D14	I/O	D14	I/O	D14	I/O	D14
19	I/O	D15	I/O	D15	I/O	D15	I/O	D15
20	—	GND	—	GND	—	GND	—	GND
21	O	A0	O	A0	O	A0	O	A0
22	O	A1	O	A1	O	A1	O	A1
23	O	A2	O	A2	O	A2	O	A2
24	O	A3	O	A3	O	A3	O	A3
25	O	A4	O	A4	O	A4	O	A4
26	O	A5	O	A5	O	A5	O	A5
27	O	A6	O	A6	O	A6	O	A6
28	O	A7	O	A7	O	A7	O	A7
29	O	A8	O	A8	O	A8	O	A8
30	O	A9	O	A9	O	A9	O	A9
31	O	A10	O	A10	O	A10	O	A10
32	O	A11	O	A11	O	A11	O	A11
33	O	A12	O	A12	O	A12	O	A12
34	O	A13	O	A13	O	A13	O	A13
35	O	A14	O	A14	O	A14	O	A14
36	O	A15	O	A15	O	A15	O	A15
37	—	GND	—	GND	—	GND	—	GND
38	I/O	P20	I/O	P20	O	A16	O	P20
39	I/O	P21	I/O	P21	O	A17	O	P21
40	I/O	P22	I/O	P22	O	A18	O	P22
41	I/O	P23	I/O	P23	O	A19	O	A19
42	I/O	P24	I/O	P24	O	A20	O	A20
43	I/O	P25	I/O	P25	O	A21	O	A21
44	I/O	P26	I/O	P26	O	A22	O	A22
45	I/O	P27	I/O	P27	O	A23	O	A23
46	—	GND	—	GND	—	GND	—	GND
47	I/O	P30 / $\overline{\text{WAIT}}$	I/O	P30 / $\overline{\text{WAIT}}$	I/O	P30 / $\overline{\text{WAIT}}$	I/O	P30 / $\overline{\text{WAIT}}$
48	I/O	P31 / $\overline{\text{BACK}}$	I/O	P31 / $\overline{\text{BACK}}$	I/O	P31 / $\overline{\text{BACK}}$	I/O	P31 / $\overline{\text{BACK}}$
49	I/O	P32 / $\overline{\text{BREQ}}$	I/O	P32 / $\overline{\text{BREQ}}$	I/O	P32 / $\overline{\text{BREQ}}$	I/O	P32 / $\overline{\text{BREQ}}$
50	I/O	P33	I/O	P33	I/O	P33	I/O	P33
51	I/O	P34	I/O	P34	I/O	P34	I/O	P34
52	I/O	P35	I/O	P35	I/O	P35	I/O	P35
53	I/O	P36	I/O	P36	I/O	P36	I/O	P36
54	I/O	P37	I/O	P37	I/O	P37	I/O	P37
55	—	VDD	—	VDD	—	VDD	—	VDD
56	I/O	P40 / $\overline{\text{ADTRG}}$	I/O	P40 / $\overline{\text{ADTRG}}$	I/O	P40 / $\overline{\text{ADTRG}}$	I/O	P40 / $\overline{\text{ADTRG}}$
57	I/O	P41 / TMCI	I/O	P41 / TMCI	I/O	P41 / TMCI	I/O	P41 / TMCI
58	I/O	P42 / TMRI	I/O	P42 / TMRI	I/O	P42 / TMRI	I/O	P42 / TMRI
59	I/O	P43 / TMO	I/O	P43 / TMO	I/O	P43 / TMO	I/O	P43 / TMO
60	I/O	P44 / FTI1	I/O	P44 / FTI1	I/O	P44 / FTI1	I/O	P44 / FTI1
61	I/O	P45 / FTCI1	I/O	P45 / FTCI1	I/O	P45 / FTCI1	I/O	P45 / FTCI1
62	I/O	P46 / FTI2	I/O	P46 / FTI2	I/O	P46 / FTI2	I/O	P46 / FTI2
63	I/O	P47 / FTCI2	I/O	P47 / FTCI2	I/O	P47 / FTCI2	I/O	P47 / FTCI2
64	—	GND	—	GND	—	GND	—	GND
65	I/O	P50 / FTOA1	I/O	P50 / FTOA1	I/O	P50 / FTOA1	I/O	P50 / FTOA1
66	I/O	P51 / FTOB1	I/O	P51 / FTOB1	I/O	P51 / FTOB1	I/O	P51 / FTOB1
67	I/O	P52 / FTOA2	I/O	P52 / FTOA2	I/O	P52 / FTOA2	I/O	P52 / FTOA2
68	I/O	P53 / FTOB2	I/O	P53 / FTOB2	I/O	P53 / FTOB2	I/O	P53 / FTOB2
69	I/O	P54	I/O	P54	I/O	P54	I/O	P54
70	I/O	P55	I/O	P55	I/O	P55	I/O	P55
71	I/O	P56	I/O	P56	I/O	P56	I/O	P56
72	I/O	P57	I/O	P57	I/O	P57	I/O	P57
73	I/O	P60	I/O	P60	I/O	P60	I/O	P60
74	I/O	P61	I/O	P61	I/O	P61	I/O	P61
75	I/O	P62	I/O	P62	I/O	P62	I/O	P62
76	I/O	P63	I/O	P63	I/O	P63	I/O	P63
77	I/O	P64	I/O	P64	I/O	P64	I/O	P64
78	I/O	P65	I/O	P65	I/O	P65	I/O	P65
79	I/O	P66	I/O	P66	I/O	P66	I/O	P66
80	I/O	P67	I/O	P67	I/O	P67	I/O	P67
81	—	GND	—	GND	—	GND	—	GND
82	—	A-GND	—	A-GND	—	A-GND	—	A-GND
83	I	P70 / AN0	I	P70 / AN0	I	P70 / AN0	I	P70 / AN0
84	I	P71 / AN1	I	P71 / AN1	I	P71 / AN1	I	P71 / AN1
85	I	P72 / AN2	I	P72 / AN2	I	P72 / AN2	I	P72 / AN2
86	I	P73 / AN3	I	P73 / AN3	I	P73 / AN3	I	P73 / AN3
87	—	A-VDD	—	A-VDD	—	A-VDD	—	A-VDD
88	—	VDD	—	VDD	—	VDD	—	VDD
89	I/O	P80 / $\overline{\text{IRQ0}}$	I/O	P80 / $\overline{\text{IRQ0}}$	I/O	P80 / $\overline{\text{IRQ0}}$	I/O	P80 / $\overline{\text{IRQ0}}$
90	I/O	P81 / $\overline{\text{IRQ1}}$	I/O	P81 / $\overline{\text{IRQ1}}$	I/O	P81 / $\overline{\text{IRQ1}}$	I/O	P81 / $\overline{\text{IRQ1}}$
91	I/O	P82 / $\overline{\text{IRQ2}}$ / SCK1	I/O	P82 / $\overline{\text{IRQ2}}$ / SCK1	I/O	P82 / $\overline{\text{IRQ2}}$ / SCK1	I/O	P82 / $\overline{\text{IRQ2}}$ / SCK1
92	I/O	P83 / $\overline{\text{IRQ3}}$ / SCK2	I/O	P83 / $\overline{\text{IRQ3}}$ / SCK2	I/O	P83 / $\overline{\text{IRQ3}}$ / SCK2	I/O	P83 / $\overline{\text{IRQ3}}$ / SCK2
93	I/O	P84 / RXD1	I/O	P84 / RXD1	I/O	P84 / RXD1	I/O	P84 / RXD1
94	I/O	P85 / TXD1	I/O	P85 / TXD1	I/O	P85 / TXD1	I/O	P85 / TXD1
95	I/O	P86 / RXD2	I/O	P86 / RXD2	I/O	P86 / RXD2	I/O	P86 / RXD2
96	I/O	P87 / TXD2	I/O	P87 / TXD2	I/O	P87 / TXD2	I/O	P87 / TXD2
97	—	GND	—	GND	—	GND	—	GND
98	I	EXTAL	I	EXTAL	I	EXTAL	I	EXTAL
99	I	XTAL	I	XTAL	I	XTAL	I	XTAL
100	—	GND	—	GND	—	GND	—	GND
101	O	ø	O	ø	O	ø	O	ø
102	O	E	O	E	O	E	O	E
103	O	$\overline{\text{AS}}$	O	$\overline{\text{AS}}$	O	$\overline{\text{AS}}$	O	$\overline{\text{AS}}$
104	O	$\overline{\text{RD}}$	O	$\overline{\text{RD}}$	O	$\overline{\text{RD}}$	O	$\overline{\text{RD}}$
105	O	$\overline{\text{HWR}}$	O	$\overline{\text{HWR}}$	O	$\overline{\text{HWR}}$	O	$\overline{\text{HWR}}$
106	O	$\overline{\text{LWR}}$	O	$\overline{\text{LWR}}$	O	$\overline{\text{LWR}}$	O	$\overline{\text{LWR}}$
107	O	$\overline{\text{RFSH}}$	O	$\overline{\text{RFSH}}$	O	$\overline{\text{RFSH}}$	O	$\overline{\text{RFSH}}$
108	—	VDD	—	VDD	—	VDD	—	VDD
109	I	MD0	I	MD0	I	MD0	I	MD0
110	I	MD1	I	MD1	I	MD1	I	MD1
111	I	MD2	I	MD2	I	MD2	I	MD2
112	I	$\overline{\text{STBY}}$	I	$\overline{\text{STBY}}$	I	$\overline{\text{STBY}}$	I	$\overline{\text{STBY}}$


D8
D9
D10
D11
D12
D13
D14
D15
P10/D0
P11/D1
P12/D2
P13/D3
P14/D4
P15/D5
P16/D6
P17/D7
P20/A16
P21/A17
P22/A18
P23/A19
P24/A20
P25/A21
P26/A22
P27/A23
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
MD0
MD1
MD2
EXTAL
XTAL
ø
E
RES
STBY
NMI
AS
RD
HWR
LWR
RFSH
WAIT/P30
BACK/P31
BREQ/P32
P33
P34
P35
P36
P37
ADTRG/P40
TMCI/P41
TMRI/P42
TMO/P43
FTI1/P44
FTCI1/P45
FTI2/P46
FTCI2/P47
FTOA1/P50
FTOB1/P51
FTOA2/P52
FTOB2/P53
P54
P55
P56
P57
P60
P61
P62
P63
P64
P65
P66
P67
AN0/P70
AN1/P71
AN2/P72
AN3/P73
IRQ0/P80
IRQ1/P81
SCK1/IRQ2/P82
SCK2/IRQ3/P83
RXD1/P84
TXD1/P85
RXD2/P86
TXD2/P87

INPUT

ADTRG	;	EXTERNAL TRIGGER
AN0 - AN3	;	ANALOG
BREQ	;	BUS RIGHT REQUEST
EXTAL	;	CRYSTAL OSCILLATOR
FTI1, FTI2	;	FREE RUNNING TIMER INPUT CAPTURE (CH1, CH2)
FTCI1, FTCI2	;	FREE RUNNING TIMER COUNTER CLOCK (CH1, CH2)
IRQ0 - IRQ3	;	INTERRUPT REQUEST
MD0 - MD2	;	MODE SET UP
NMI	;	NON-MASKABLE INTERRUPT
P70 - P73	;	PORT 7
RXD1, RXD2	;	RECEIVE DATA (CH1, CH2)
STBY	;	STANDBY
TMCI	;	8-BIT TIMER CLOCK
TMRI	;	8-BIT TIMER COUNTER RESET
WAIT	;	WAIT
XTAL	;	CRYSTAL OSCILLATOR

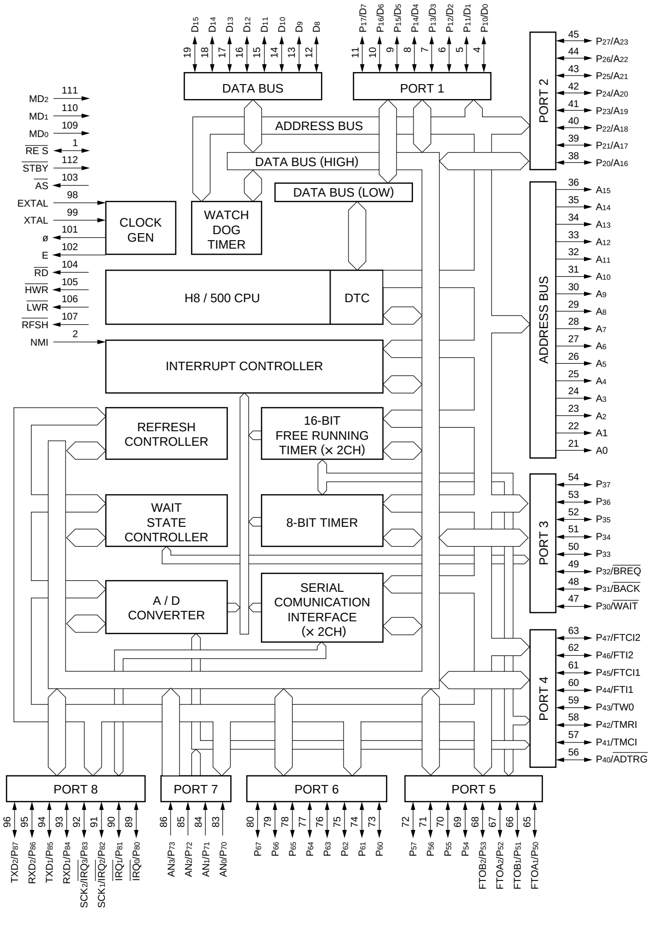
OUTPUT

A0 - A23	;	ADDRESS BUS
AS	;	ADDRESS STROBE
BACK	;	BUS RIGHT REQUEST ACKNOWLEDGE
E	;	ENABLE CLOCK
FTOA1, FTOA2	;	FREE RUNNING TIMER OUTPUT COMPARE A (CH1, CH2)
FTOB1, FTOB2	;	FREE RUNNING TIMER OUTPUT COMPARE B (CH1, CH2)
HWR	;	HIGH WRITE
LWR	;	LOW WRITE
RD	;	READ
RFSH	;	REFRESH CYCLE
TMO	;	8-BIT TIMER
TXD1, TXD2	;	TRANSMISSION DATA (CH1, CH2)
ø	;	SYSTEM CLOCK

INPUT/OUTPUT

D0 - D15	;	DATA BUS
P10 - P17	;	PORT 1
P20 - P27	;	PORT 2
P30 - P37	;	PORT 3
P40 - P47	;	PORT 4
P50 - P57	;	PORT 5
P60 - P67	;	PORT 6
P80 - P87	;	PORT 8
RES	;	RESET
SCK1, SCK2	;	SERIAL CLOCK (CH1, CH2)

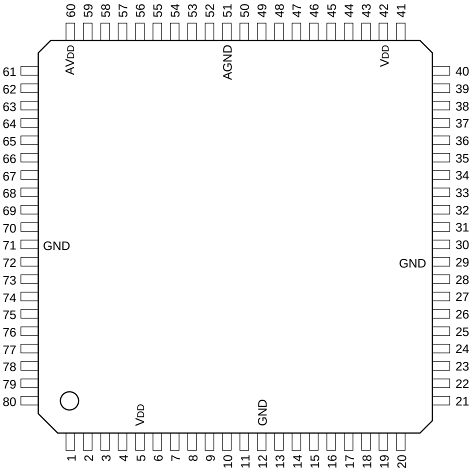
INPUTS			OPERATION MODE	CONTENTS
MD2	MD1	MD0		
0	0	1	MODE 1	EXTENSION MINIMUM MODE (8BIT BUS)
0	1	0	MODE 2	EXTENSION MINIMUM MODE (16BIT BUS)
0	1	1	MODE 3	EXTENSION MAXIMUM MODE (8BIT BUS)
1	0	0	MODE 4	EXTENSION MAXIMUM MODE (16BIT BUS)
1	0	1	MODE 5	SINGLE CHIP MODE
1	1	0	MODE 6	
1	1	1	MODE 7	


DATA BUS
PORT 1
ADDRESS BUS
DATA BUS (HIGH)
DATA BUS (LOW)
CLOCK GEN
WATCH DOG TIMER
H8 / 500 CPU
DTC
INTERRUPT CONTROLLER
REFRESH CONTROLLER
16-BIT FREE RUNNING TIMER (× 2CH)
WAIT STATE CONTROLLER
8-BIT TIMER
A / D CONVERTER
SERIAL COMUNICATION INTERFACE (× 2CH)
PORT 2
ADDRESS BUS
PORT 3
PORT 4
PORT 8
PORT 7
PORT 6
PORT 5
MD2
MD1
MD0
RES
STBY
AS
EXTAL
XTAL
ø
E
RD
HWR
LWR
RFSH
NMI
D15 D14 D13 D12 D11 D10 D9 D8
P17/D7 P16/D6 P15/D5 P14/D4 P13/D3 P12/D2 P11/D1 P10/D0
P27/A23 P26/A22 P25/A21 P24/A20 P23/A19 P22/A18 P21/A17 P20/A16
A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A0
P37 P36 P35 P34 P33 P32/BREQ P31/BACK P30/WAIT
P47/FTCI2 P46/FTI2 P45/FTCI1 P44/FTI1 P43/TW0 P42/TMRI P41/TMCI P40/ADTRG
TXD2/P87 RXD2/P86 TXD1/P85 RXD1/P84 SCK2/IRQ3/P83 SCK1/IRQ2/P82 IRQ1/P81 IRQ0/P80
AN3/P73 AN2/P72 AN1/P71 AN0/P70
P67 P66 P65 P64 P63 P62 P61 P60
P57 P56 P55 P54 FTOB2/P53 FTOA2/P52 FTOB1/P51 FTOA1/P50

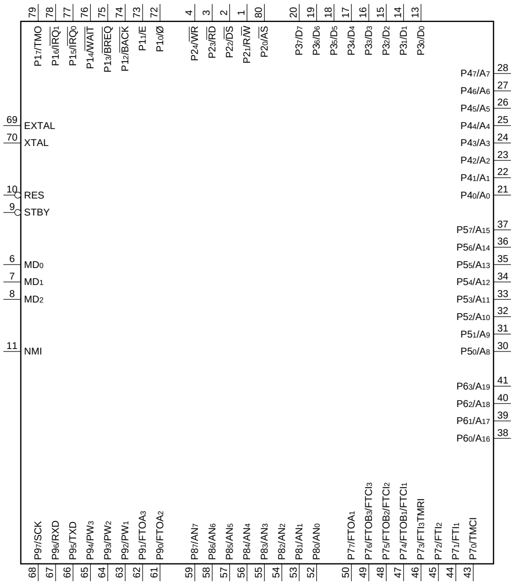
HD6435328RE49F
HD6475328F10 (HITACHI)

C-MOS 16-BIT MICROPROCESSOR

—TOP VIEW—


AV_{DD}
AGND
V_{DD}
GND
GND
V_{DD}
GND
1 – 80

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I/O	P21/R/W	28	I/O	P47/A7	55	I/O	P83/AN3
2	I/O	P22/DS	29	—	GND	56	I/O	P84/AN4
3	I/O	P23/RD	30	I/O	P50/A8	57	I/O	P85/AN5
4	I/O	P24/WR	31	I/O	P51/A9	58	I/O	P86/AN6
5	—	V_{DD}	32	I/O	P52/A10	59	I/O	P87/AN7
6	I	MD0	33	I/O	P53/A11	60	—	AV_{DD}
7	I	MD1	34	I/O	P54/A12	61	I/O	P90/FTOA2
8	I	MD2	35	I/O	P55/A13	62	I/O	P91/FTOA3
9	I	STBY	36	I/O	P56/A14	63	I/O	P92/PW1
10	I	RES	37	I/O	P57/A15	64	I/O	P93/PW2
11	I	NMI	38	I/O	P60/A16	65	I/O	P94/PW3
12	—	GND	39	I/O	P61/A17	66	I/O	P95/TXD
13	I/O	P30/D0	40	I/O	P62/A18	67	I/O	P96/RXD
14	I/O	P31/D1	41	I/O	P63/A19	68	I/O	P97/SCK
15	I/O	P32/D2	42	—	V_{DD}	69	I	EXTAL
16	I/O	P33/D3	43	I/O	P70/TMCI	70	I	XTAL
17	I/O	P34/D4	44	I/O	P71/FTI1	71	—	V_{SS}
18	I/O	P35/D5	45	I/O	P72/FTI2	72	I/O	P10/ø
19	I/O	P36/D6	46	I/O	P73/FTI3/TMRI	73	I/O	P11/E
20	I/O	P37/D7	47	I/O	P74/FTOB1/FTCI1	74	I/O	P12/BACK
21	I/O	P40/A0	48	I/O	P75/FTOB2/FTCI2	75	I/O	P12/BREQ
22	I/O	P41/A1	49	I/O	P76/FTOB3/FTCI3	76	I/O	P12/WAIT
23	I/O	P42/A2	50	O	P77/FTOA1	77	I/O	P12/IRQ0
24	I/O	P43/A3	51	—	AGND	78	I/O	P12/IRQ1
25	I/O	P44/A4	52	I/O	P80/AN0	79	I/O	P12/TMO
26	I/O	P45/A5	53	I/O	P81/AN1	80	I/O	P12/AS
27	I/O	P46/A6	54	I/O	P82/AN2			


$P1_7$/TMO
$P1_6$/$\overline{IRQ_1}$
$P1_5$/$\overline{IRQ_0}$
$P1_4$/$\overline{WAIT}$
$P1_3$/$\overline{BREQ}$
$P1_2$/$\overline{BACK}$
$P1_1$/E
$P1_0$/Ø
$P2_4$/$\overline{WR}$
$P2_3$/$\overline{RD}$
$P2_2$/$\overline{DS}$
$P2_1$/R/$\overline{W}$
$P2_0$/$\overline{AS}$
$P3_7$/D_7 … $P3_0$/D_0
EXTAL
XTAL
RES
STBY
MD_0
MD_1
MD_2
NMI
$P4_7$/A_7 … $P4_0$/A_0
$P5_7$/A_{15} … $P5_0$/A_8
$P6_3$/A_{19} … $P6_0$/A_{16}
$P9_7$/SCK
$P9_6$/RXD
$P9_5$/TXD
$P9_4$/PW_3
$P9_3$/PW_2
$P9_2$/PW_1
$P9_1$/$FTOA_3$
$P9_0$/$FTOA_2$
$P8_7$/AN_7 … $P8_0$/AN_0
$P7_7$/$FTOA_1$
$P7_6$/$FTOB_3$/$FTCI_3$
$P7_5$/$FTOB_2$/$FTCI_2$
$P7_4$/$FTOB_1$/$FTCI_1$
$P7_3$/FTI_3TMRI
$P7_2$/FTI_2
$P7_1$/FTI_1
$P7_0$/TMCI

INPUT

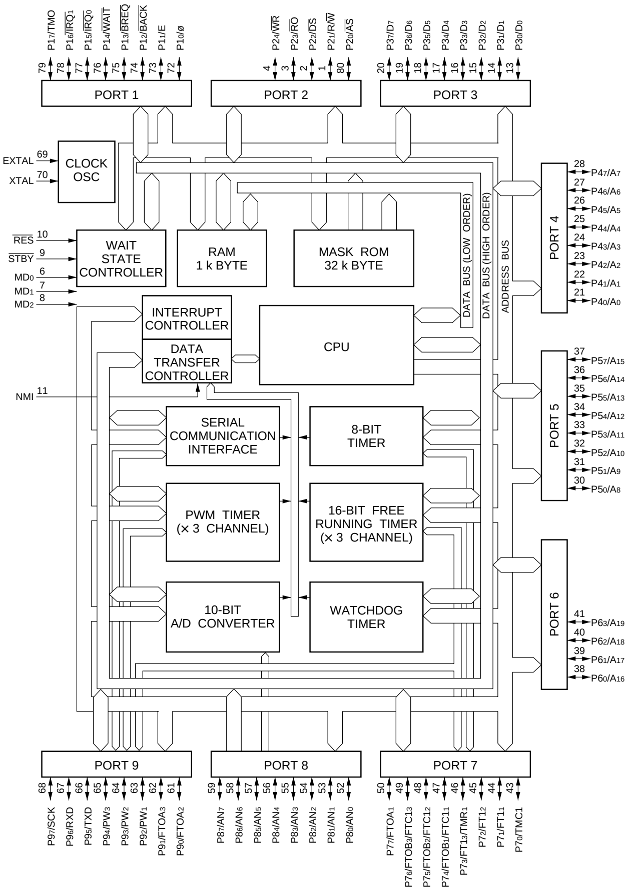
AN0 - AN7	; ANALOG INPUT
BREQ	; BUS REQUEST
EXTAL	; CONNECTED TO CRYSTAL OSCILLATOR.
ETCI1 - FTCI3	; FRT COUNTER CLOCK INPUT (CHANNEL 1 TO 3)
FTI1 - FTI3	; FRT INPUT CAPTURE INPUT (CHANNEL 1 TO 3)
IRQ0, 1	; INTERRUPTION REQUEST 0 AND 1
MD0 - MD2	; MODE SETTING
NMI	; NON MASKABLE INTERRUPTION
P80 - P87	; PORT 8
RES	; RESET
RXD	; RECEIVE DATA
STBY	; STANDBY
TMCI	; 8-BIT TIMER CLOCK INPUT
TMRI	; 8-BIT TIMER COUNTER RESET INPUT
WAIT	; WAIT
XTAL	; CONNECTED TO CRYSTAL OSCILLATOR.

OUTPUT

A0 - A19	; ADDRESS BUS
AS	; ADDRESS STROBE
BACK	; BUS REQUEST ACKNOWLEDGE
DS	; DATA STROBE
E	; ENABLE CLOCK
FTOA1 - FTOA3	; FRT OUTPUT COMPARE A OUTPUT (CHANNEL 1 TO 3)
FTOB1 - FTOB3	; FRT OUTPUT COMPARE B OUTPUT (CHANNEL 1 TO 3)
PW1 - PW3	; PWM TIMER OUTPUT (CHANNEL 1 TO 3)
R/W	; READ/WRITE
RD	; READ
TMO	; 8-BIT TIMER OUTPUT
TXD	; SEND DATA
WR	; WRITE
ø	; SYSTEM CLOCK

INPUT/OUTPUT

D0 - D7	; DATA BUS
P10 - P17	; PORT 1
P20 - P24	; PORT 2
P30 - P37	; PORT 3
P40 - P47	; PORT 4
P50 - P57	; PORT 5
P60 - P63	; PORT 6
P70 - P77	; PORT 7
P90 - P97	; PORT 9
SCK	; SERIAL CLOCK INPUT/OUTPUT

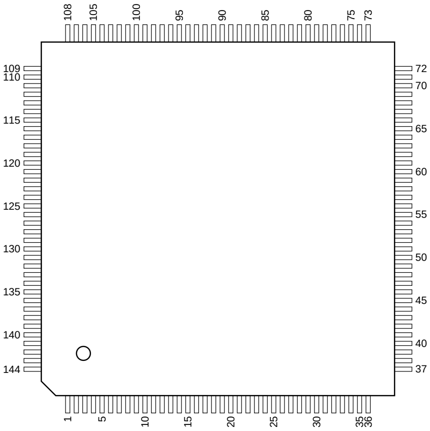

PORT 1
PORT 2
PORT 3
PORT 4
PORT 5
PORT 6
PORT 7
PORT 8
PORT 9
EXTAL
XTAL
CLOCK OSC
RES
STBY
MD_0
MD_1
MD_2
WAIT STATE CONTROLLER
RAM 1 k BYTE
MASK ROM 32 k BYTE
INTERRUPT CONTROLLER
DATA TRANSFER CONTROLLER
CPU
NMI
SERIAL COMMUNICATION INTERFACE
8-BIT TIMER
PWM TIMER (× 3 CHANNEL)
16-BIT FREE RUNNING TIMER (× 3 CHANNEL)
10-BIT A/D CONVERTER
WATCHDOG TIMER
DATA BUS (LOW ORDER)
DATA BUS (HIGH ORDER)
ADDRESS BUS

http://getMANUAL.com

HD64F7045F28 (HITACHI)

32-BIT MICROCOMPUTER

—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I/O	PA23/WRHH	49	I/O	PA11/CS1	97	I	MD2
2	I/O	PE14/TIOC4C/DACK0/AH	50	I/O	PA10/CS0	98	I	NMI
3	I/O	PA22/WRHL	51	I/O	PA9/TCLKD/IRQ3	99	—	Vcc
4	I/O	PA21/CASHH	52	I/O	PA8/TCLKC/IRQ2	100	I/O	PA16/AH
5	I/O	PE15/TIOC4D/DACK1/IRQOUT	53	I/O	PA7/TCLKB/CS3	101	I/O	PA17/WAIT
6	—	GND	54	I/O	PA6/TCLKA/CS2	102	I	MD1
7	I/O	PC0/A0	55	—	GND	103	I	MD0
8	I/O	PC1/A1	56	I/O	PD29/D29/CS3	104	—	PLLVcc
9	I/O	PC2/A2	57	I/O	PD28/D28/CS2	105	—	PLLCAP
10	I/O	PC3/A3	58	I/O	PD27/D27/DACK1	106	—	PLLGND
11	I/O	PC4/A4	59	I/O	PD26/D26/DACK0	107	I/O	PA15/CK
12	—	Vcc	60	I/O	PD25/D25/DREQ1	108	I	RES
13	I/O	PC5/A5	61	—	GND	109	I/O	PE0/TIOC0A/DREQ0
14	—	GND	62	I/O	PD24/D24/DREQ0	110	I/O	PE1/TIOC0B/DRAK0
15	I/O	PC6/A6	63	—	Vcc	111	I/O	PE2/TIOC0C/DREQ1
16	I/O	PC7/A7	64	I/O	PD23/D23/IRQ7	112	—	Vcc
17	I/O	PC8/A8	65	I/O	PD22/D22/IRQ6	113	I/O	PE3/TIOC0D/DRAK1
18	I/O	PC9/A9	66	I/O	PD21/D21/IRQ5	114	I/O	PE4/TIOC1A
19	I/O	PC10/A10	67	I/O	PD20/D20/IRQ4	115	I/O	PE5/TIOC1B
20	I/O	PC11/A11	68	I/O	PD19/D19/IRQ3	116	I/O	PE6/TIOC2A
21	I/O	PC12/A12	69	I/O	PD18/D18/IRQ2	117	—	GND
22	I/O	PC13/A13	70	I/O	PD17/D17/IRQ1	118	I	PF0/AN0
23	I/O	PC14/A14	71	—	GND	119	I	PF1/AN1
24	I/O	PC15/A15	72	I/O	PD16/D16/IRQ0	120	I	PF2/AN2
25	I/O	PB0/A16	73	I/O	PD15/D15	121	I	PF3/AN3
26	—	Vcc	74	I/O	PD14/D14	122	I	PF4/AN4
27	I/O	PB1/A17	75	I/O	PD13/D13	123	I	PF5/AN5
28	—	GND	76	I/O	PD12/D12	124	—	AGND
29	I/O	PA20/CASHL	77	—	Vcc	125	I	PF6/AN6
30	I/O	PA19/BACK/DRAK1	78	I/O	PD11/D11	126	I	PF7/AN7
31	I/O	PB2/IRQ0/POE0/RAS	79	—	GND	127	—	AVREF
32	I/O	PB3/IRQ1/POE1/CASL	80	I/O	PD10/D10	128	—	AVcc
33	I/O	PA18/BREQ/DRAK0	81	I/O	PD9/D9	129	—	GND
34	I/O	PB4/IRQ2/POE2/CASH	82	I/O	PD8/D8	130	I/O	PA0/RXD0
35	—	GND	83	I/O	PD7/D7	131	I/O	PA1/TXD0
36	I/O	PB5/IRQ3/POE3/RDWR	84	I/O	PD6/D6	132	I/O	PA2/SCK0/DREQ0/IRQ0
37	I/O	PB6/IRQ4/A18/BACK	85	—	Vcc	133	I/O	PA3/RXD1
38	I/O	PB7/IRQ5/A19/BREQ	86	I/O	PD5/D5	134	I/O	PA4/TXD1
39	I/O	PB8/IRQ6/A20/WAIT	87	—	GND	135	—	Vcc
40	—	Vcc	88	I/O	PD4/D4	136	I/O	PA5/SCK1/DREQ1/IRQ1
41	I/O	PB9/IRQ7/A21/ADTRG	89	I/O	PD3/D3	137	I/O	PE7/TIOC2B
42	—	GND	90	I/O	PD2/D2	138	I/O	PE8/TIOC3A
43	I/O	PA14/RD	91	I/O	PD1/D1	139	I/O	PE9/TIOC3B
44	O	WDTOVF	92	I/O	PD0/D0	140	I/O	PE10/TIOC3C
45	I/O	PD31/D31/ADTRG	93	—	GND	141	—	GND
46	I/O	PD30/D30/IRQOUT	94	I	XTAL	142	I/O	PE11/TIOC3D
47	I/O	PA13/WRH	95	I	MD3	143	I/O	PE12/TIOC4A
48	I/O	PA12/WRL	96	I	EXTAL	144	I/O	PE13/TIOC4B/MRES

INPUTS

ADTRG : A/D CONVERTER TRIGGER
AN0 - AN7 : ANALOG
BREQ : BUS REQUEST
DREQ0, DREQ1 : DMA TRANSFER REQUEST
EXTAL : CRYSTAL OSCILLATOR AND EXTERNAL CLOCK
FWP : FLASH MEMORY WRITE DISABLE
IRQ0 - IRQ7 : INTERRUPT REQUEST
MD0 - MD3 : MODE SELECT
MRES : MANUAL RESET
NMI : NON-MASKABLE INTERRUPT
PF0 - PF7 : PORT F
POE0 - POE3 : PORT OUTPUT ENABLE
RES : POWER ON RESET
RXD0, RXD1 : RECEIVE DATA
TCLKA - TCLKD : MTU TIMER CLOCK
WAIT : WAIT
XTAL : EXTERNAL CRYSTAL OSCILLATOR

OUTPUTS

A0 - A21 : ADDRESS BUS
AH : ADDRESS HOLD
BACK : BUS REQUEST ACKNOWLEDGE
CASH : HIGH COLUMN ADDRESS STROBE
CASHH : HH COLUMN ADDRESS STROBE
CASHL : HL COLUMN ADDRESS STROBE
CASL : LOW COLUMN ADDRESS STROBE
CK : SYSTEM CLOCK
CS0 - CS3 : CHIP SELECT
DACK0, DACK1 : DMA TRANSFER STROBE
DRAK0, DRAK1 : DREQ ACKNOWLEDGE
IRQOUT : INTERRUPT REQUEST
RAS : ROW ADDRESS STROBE
RD : READ
RDWR : DRAM READ/WRITE
TXD0, TXD1 : TRANSMIT DATA
WDTOVF : WATCH-DOG TIMER OVERFLOW
WRH : HIGH WRITE
WRHH : HH WRITE
WRHL : HL WRITE
WRL : LOW WRITE

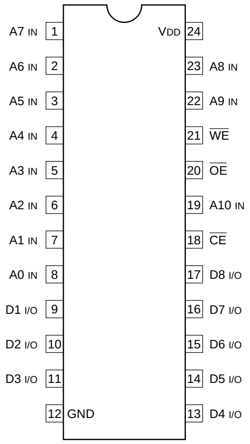
INPUTS/OUTPUTS

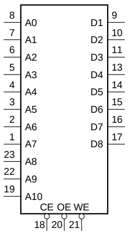
D0 - D31 : DATA BUS
PA0 - PA23 : PORT A
PB0 - PB9 : PORT B
PC0 - PC15 : PORT C
PD0 - PD31 : PORT D
PE0 - PE15 : PORT E
SCK0, SCK1 : SERIAL CLOCK
TIOC0A - TIOC0D : MTU INPUT CAPTURE/OUTPUT COMPARE
TIOC1A, TIOC1B : MTU INPUT CAPTURE/OUTPUT COMPARE
TIOC2A, TIOC2B : MTU INPUT CAPTURE/OUTPUT COMPARE
TIOC3A - TIOC3D : MTU INPUT CAPTURE/OUTPUT COMPARE
TIOC4A - TIOC4D : MTU INPUT CAPTURE/OUTPUT COMPARE

IDT6116SA25SO (IDT)
IDT6116SA25SO-T

C-MOS 16K (2,048 × 8)-BIT SRAM

—TOP VIEW—


A7 IN 1
A6 IN 2
A5 IN 3
A4 IN 4
A3 IN 5
A2 IN 6
A1 IN 7
A0 IN 8
D1 I/O 9
D2 I/O 10
D3 I/O 11
12 GND
VDD 24
23 A8 IN
22 A9 IN
21 WE
20 OE
19 A10 IN
18 CE
17 D8 I/O
16 D7 I/O
15 D6 I/O
14 D5 I/O
13 D4 I/O

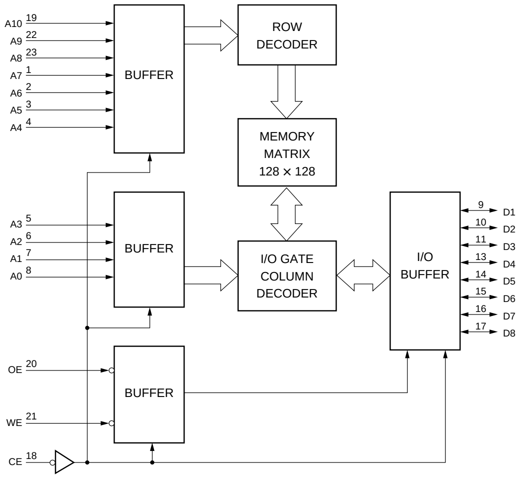

8 A0
7 A1
6 A2
5 A3
4 A4
3 A5
2 A6
1 A7
23 A8
22 A9
19 A10
D1 9
D2 10
D3 11
D4 13
D5 14
D6 15
D7 16
D8 17
CE OE WE
18 20 21

A0 - A10 ; ADDRESS INPUTS
CE ; CHIP ENABLE INPUT
D1 - D8 ; DATA INPUTS / OUTPUTS
OE ; OUTPUT ENABLE INPUT
WE ; WRITE ENABLE INPUT

FUNCTION TABLE

CONTROL INPUTS			MODE	D1 - D8
CE	OE	WE		
1	×	×	STANDBY	HI-Z
0	1	1	DISABLE OUTPUT	HI-Z
0	0	1	FEAD	OUTPUT
0	×	0	WRITE	INPUT

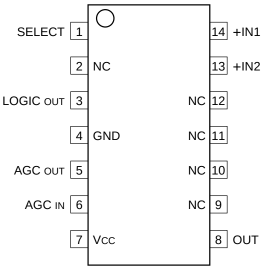
0 ; LOW LEVEL
1 ; HIGH LEVEL
× ; DON'T CARE
HI-Z ; HIGH IMPEDANCE

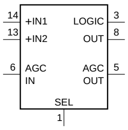

A10 19
A9 22
A8 23
A7 1
A6 2
A5 3
A4 4
BUFFER
ROW DECODER
MEMORY MATRIX 128 × 128
A3 5
A2 6
A1 7
A0 8
BUFFER
I/O GATE COLUMN DECODER
I/O BUFFER
9 D1
10 D2
11 D3
13 D4
14 D5
15 D6
16 D7
17 D8
OE 20
WE 21
BUFFER
CE 18

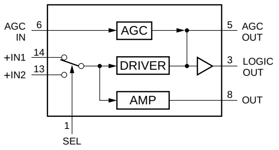
LA7205M (SANYO)
LA7205M-TE-L

AGC AMP, INPUT SELECT, AGC DET, COMPARATOR

—TOP VIEW—


SELECT 1
2 NC
LOGIC OUT 3
4 GND
AGC OUT 5
AGC IN 6
7 VCC
14 +IN1
13 +IN2
NC 12
NC 11
NC 10
NC 9
8 OUT

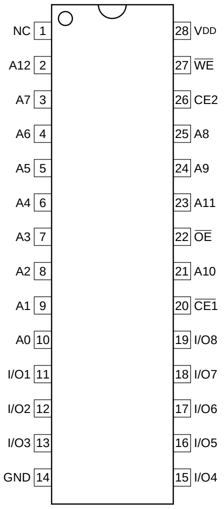

14 +IN1
13 +IN2
6 AGC IN
LOGIC OUT 3
8
AGC OUT 5
SEL
1

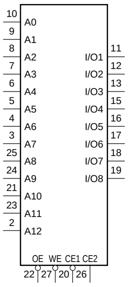

AGC IN 6
+IN1 14
+IN2 13
AGC
DRIVER
AMP
5 AGC OUT
3 LOGIC OUT
8 OUT
1
SEL

LC3564BM-70-TLM (SANYO)

64 K (8,192 × 8)-BIT SRAM

—TOP VIEW—


NC 1
A12 2
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
I/O1 11
I/O2 12
I/O3 13
GND 14
28 VDD
27 WE
26 CE2
25 A8
24 A9
23 A11
22 OE
21 A10
20 CE1
19 I/O8
18 I/O7
17 I/O6
16 I/O5
15 I/O4


10 A0
9 A1
8 A2
7 A3
6 A4
5 A5
4 A6
3 A7
25 A8
24 A9
21 A10
23 A11
2 A12
I/O1 11
I/O2 12
I/O3 13
I/O4 15
I/O5 16
I/O6 17
I/O7 18
I/O8 19
OE WE CE1 CE2
22 27 20 26

INPUTS
A0 - A12 : ADDRESS
$\overline{\text{CE1}}$, CE2 : CHIP ENABLE
$\overline{\text{OE}}$: OUTPUT ENABLE
$\overline{\text{WE}}$: WRITE ENABLE

INPUTS/OUTPUTS
I/O1 - I/O8 : DATA

OTHER
NC : NO CONNECTION

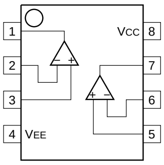
CE1	CE2	OE	WE	MODE	I/O TERMINAL
1	×	×	×	NOT SELECT	HIGH IMPEDANCE
×	0	×	×	NOT SELECT	HIGH IMPEDANCE
0	1	1	1	OUTPUT DISABLE	HIGH IMPEDANCE
0	1	0	1	READ	OUTPUT DATA
0	1	×	0	WRITE	INPUT DATA

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

LF353M (NS)
LF353M-FL63
MC34182DR2
MC34182M (MOTOROLA)
NJM062M (JRC)
NJM062M-TE2
NJM062V(TE2) (JRC)
NJM072BM (JRC)
NJM4556AM (JRC)
NJM4556AM-A-TE2
NJM4565M-A (JRC)
NJM4565M-A(TE2)
NJM4580E-D (JRC)
NJM4580E-D-TE2
TL062CPW (TI)
TL062CPW-E05

DUAL OPERATIONAL AMPLIFIERS
(DUAL-SUPPLY TYPE)

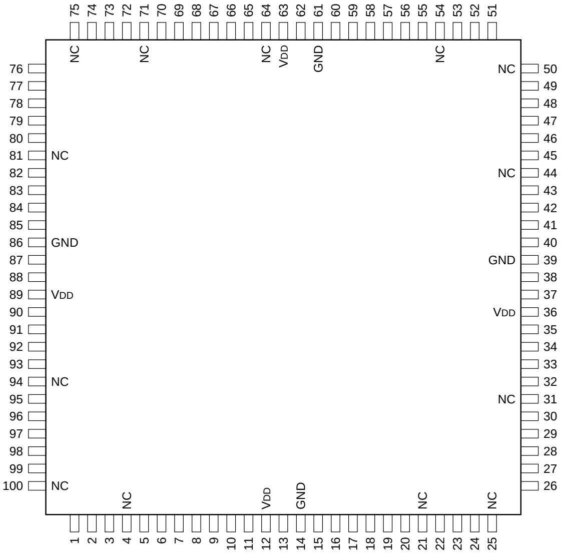
—TOP VIEW—

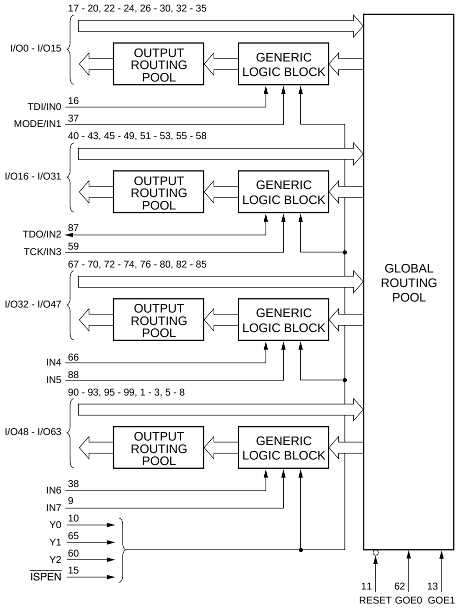

1
2
3
4 VEE
VCC 8
7
6
5

ISPLSI2128V-80LT100 (LATTICE)

C-MOS HIGH DENSITY PROGRAMMABLE LOGIC

—TOP VIEW—


75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51
NC
NC
NC
VDD
GND
NC
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
NC
GND
VDD
NC
NC
50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26
NC
NC
GND
VDD
NC
NC
VDD
GND
NC
NC
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25


17 - 20, 22 - 24, 26 - 30, 32 - 35
I/O0 - I/O15
OUTPUT ROUTING POOL
GENERIC LOGIC BLOCK
TDI/IN0 16
MODE/IN1 37
40 - 43, 45 - 49, 51 - 53, 55 - 58
I/O16 - I/O31
OUTPUT ROUTING POOL
GENERIC LOGIC BLOCK
TDO/IN2 87
TCK/IN3 59
67 - 70, 72 - 74, 76 - 80, 82 - 85
I/O32 - I/O47
OUTPUT ROUTING POOL
GENERIC LOGIC BLOCK
IN4 66
IN5 88
90 - 93, 95 - 99, 1 - 3, 5 - 8
I/O48 - I/O63
OUTPUT ROUTING POOL
GENERIC LOGIC BLOCK
IN6 38
IN7 9
Y0 10
Y1 65
Y2 60
ISPEN 15
GLOBAL ROUTING POOL
11 RESET
62 GOE0
13 GOE1

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I/O	I/O57	26	I/O	I/O7	51	I/O	I/O25	76	I/O	I/O39
2	I/O	I/O58	27	I/O	I/O8	52	I/O	I/O26	77	I/O	I/O40
3	I/O	I/O59	28	I/O	I/O9	53	I/O	I/O27	78	I/O	I/O41
4	—	NC	29	I/O	I/O10	54	—	NC	79	I/O	I/O42
5	I/O	I/O60	30	I/O	I/O11	55	I/O	I/O28	80	I/O	I/O43
6	I/O	I/O61	31	—	NC	56	I/O	I/O29	81	—	NC
7	I/O	I/O62	32	I/O	I/O12	57	I/O	I/O30	82	I/O	I/O44
8	I/O	I/O63	33	I/O	I/O13	58	I/O	I/O31	83	I/O	I/O45
9	I	IN7	34	I/O	I/O14	59	I	TCK/IN3	84	I/O	I/O46
10	I	Y0	35	I/O	I/O15	60	I	Y2	85	I/O	I/O47
11	I	$\overline{\text{RESET}}$	36	—	VDD	61	—	GND	86	—	GND
12	—	VDD	37	I	TMS/IN1	62	I	GOE0	87	I/O	TDO/IN2
13	I	GOE1	38	I	IN 6	63	—	VDD	88	I	IN5
14	—	GND	39	—	GND	64	—	NC	89	—	VDD
15	I	$\overline{\text{ISPEN}}$	40	I/O	I/O16	65	I	Y1	90	I/O	I/O48
16	I	TDI/IN 0	41	I/O	I/O17	66	I	IN4	91	I/O	I/O49
17	I/O	I/O0	42	I/O	I/O18	67	I/O	I/O32	92	I/O	I/O50
18	I/O	I/O1	43	I/O	I/O19	68	I/O	I/O33	93	I/O	I/O51
19	I/O	I/O2	44	—	NC	69	I/O	I/O34	94	—	NC
20	I/O	I/O3	45	I/O	I/O20	70	I/O	I/O35	95	I/O	I/O52
21	—	NC	46	I/O	I/O21	71	—	NC	96	I/O	I/O53
22	I/O	I/O4	47	I/O	I/O22	72	I/O	I/O36	97	I/O	I/O54
23	I/O	I/O5	48	I/O	I/O23	73	I/O	I/O37	98	I/O	I/O55
24	I/O	I/O6	49	I/O	I/O24	74	I/O	I/O38	99	I/O	I/O56
25	—	NC	50	—	NC	75	—	NC	100	—	NC

INPUT

GOE0, GOE1 : GLOBAL OUTPUT ENABLE
IN0 - IN7 : DATA
$\overline{\text{ISPEN}}$: IN-SYSTEM PROGRAMMING ENABLE
$\overline{\text{RESET}}$: RESET
TCK : CLOCK
TDI : SERIAL DATA
TMS : MODE CONTROL
Y0 - Y2 : CLOCK

OUTPUT

TDO : SERIAL DATA

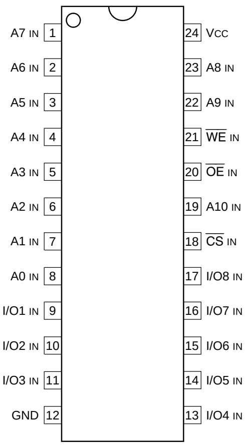
INPUT/OUTPUT

I/O0 - I/O63 : DATA

LH5116N4 (SHARP)

16K (2,048×8)-BIT SRAM

—TOP VIEW—


A7 IN 1
A6 IN 2
A5 IN 3
A4 IN 4
A3 IN 5
A2 IN 6
A1 IN 7
A0 IN 8
I/O1 IN 9
I/O2 IN 10
I/O3 IN 11
GND 12
24 VCC
23 A8 IN
22 A9 IN
21 WE IN
20 OE IN
19 A10 IN
18 CS IN
17 I/O8 IN
16 I/O7 IN
15 I/O6 IN
14 I/O5 IN
13 I/O4 IN

INPUTS

A0 - A10 : ADDRESS
$\overline{\text{CS}}$: CHIP SELECT
$\overline{\text{OE}}$: OUTPUT ENABLE
$\overline{\text{WE}}$: WRITE ENABLE

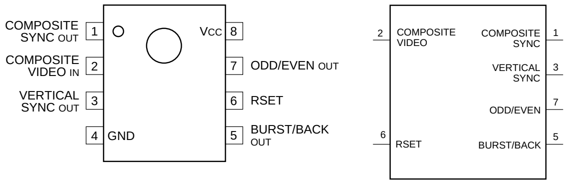
INPUTS/OUTPUTS

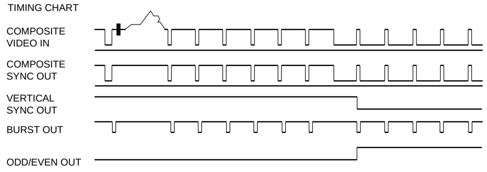
I/O1 - I/O8 : DATA

LM1881M (NS)
LM1881MX

VIDEO SYNC SEPARATOR

—TOP VIEW—

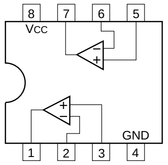

COMPOSITE SYNC OUT
COMPOSITE VIDEO IN
VERTICAL SYNC OUT
GND
VCC
ODD/EVEN OUT
RSET
BURST/BACK OUT
1
2
3
4
5
6
7
8
COMPOSITE VIDEO
RSET
COMPOSITE SYNC
VERTICAL SYNC
ODD/EVEN
BURST/BACK



LM2903PS (TI)
LM2903PS-E05
NJM2903M (JRC)
NJM2903M-TE2

DUAL VOLTAGE COMPARATORS

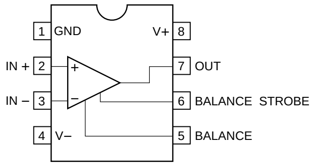
—TOP VIEW—


8
7
6
5
VCC
GND
1
2
3
4

LM311M-FL63
LM311PS (TI)

VOLTAGE COMPARATOR WITH STROBE

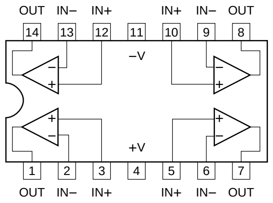
—TOP VIEW—


1 GND
IN + 2
IN – 3
4 V–
V+ 8
7 OUT
6 BALANCE STROBE
5 BALANCE

LM324NS (TI)
LM324NSR

QUAD OPERATIONAL AMPLIFIERS

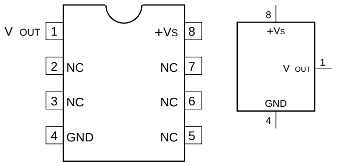
—TOP VIEW—


OUT IN– IN+ IN+ IN– OUT
14 13 12 11 10 9 8
–V
+V
1 2 3 4 5 6 7
OUT IN– IN+ IN+ IN– OUT

LM35DM (NS)
LM35DMX

TEMPERATURE SENSOR

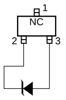
—TOP VIEW—


V OUT 1
2 NC
3 NC
4 GND
+VS 8
NC 7
NC 6
NC 5
8
+VS
V OUT 1
GND
4

LM4040AIM3-2.5 (NS)

PRECISION MICROPOWER SHUNT VOLTAGE REFERENCE

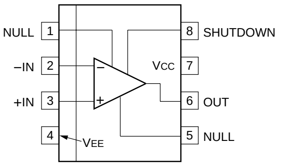
—TOP VIEW—



LT1227CS8 (LINEAR TECH)
LT1227CS8-E2

HIGH SPEED OPERATIONAL AMPLIFIER

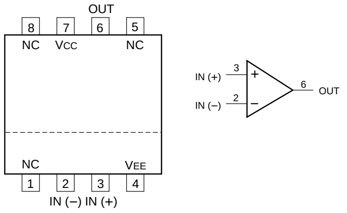
—TOP VIEW—


NULL 1
–IN 2
+IN 3
4
VEE
8 SHUTDOWN
VCC 7
6 OUT
5 NULL

LT1252CS8 (LINEAR TECH)
LT1252CS8-E2

VIDEO AMPLIFIER

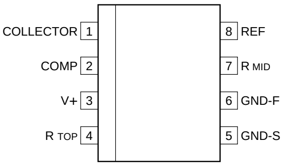
—TOP VIEW—

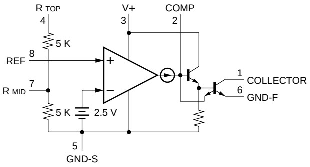

OUT
8 7 6 5
NC VCC NC
NC VEE
1 2 3 4
IN (–) IN (+)
IN (+) 3
IN (–) 2
6 OUT

LT1431CS8 (LINEAR TECH)

PROGRAMMABLE REFERENCE

—TOP VIEW—

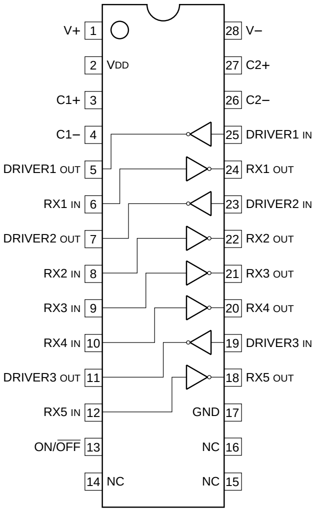

COLLECTOR 1
COMP 2
V+ 3
R TOP 4
8 REF
7 R MID
6 GND-F
5 GND-S


R TOP 4
V+ 3
COMP 2
5 K
REF 8
R MID 7
5 K
2.5 V
1 COLLECTOR
6 GND-F
5 GND-S

LTC1337CS (LINEAR)
LTC1337CSW

CMOS RS232 TRANSCEIVER

—TOP VIEW—


V+ 1
2 VDD
C1+ 3
C1– 4
DRIVER1 OUT 5
RX1 IN 6
DRIVER2 OUT 7
RX2 IN 8
RX3 IN 9
RX4 IN 10
DRIVER3 OUT 11
RX5 IN 12
ON/OFF 13
14 NC
28 V–
27 C2+
26 C2–
25 DRIVER1 IN
24 RX1 OUT
23 DRIVER2 IN
22 RX2 OUT
21 RX3 OUT
20 RX4 OUT
19 DRIVER3 IN
18 RX5 OUT
GND 17
NC 16
NC 15

INPUT

DRIVER1 - DRIVER3	:	RS-232 DRIVER
RX1 - RX5	:	RECEIVER

OUTPUT

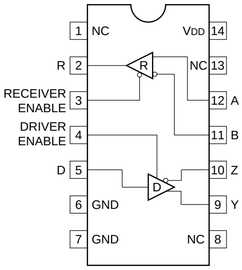
DRIVER1 - DRIVER3	:	RS-232 DRIVER
RX1 - RX5	:	RECEIVER OUTPUTS TTL/CMOS VOLTAGE LEVELS

C1+, C1–, C2+, C2–	:	EXTERNAL CAPACITORS
V+	:	POSITIVE SUPPLY (RS-232 DRIVERS)
V–	:	NEGATIVE SUPPLY (RS-232 DRIVERS)

LTC491CS-E2 (LINEAR)

C-MOS DIFFERENTIAL DRIVER AND RECEIVER

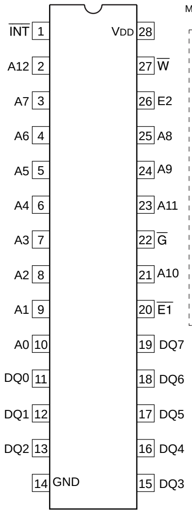
—TOP VIEW—

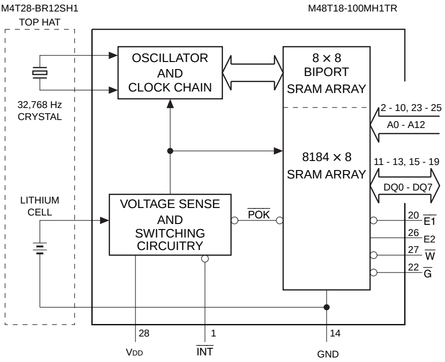

1 NC
R 2
RECEIVER ENABLE 3
DRIVER ENABLE 4
D 5
6 GND
7 GND
VDD 14
NC 13
12 A
11 B
10 Z
9 Y
NC 8
R
D

M48T18-100MH1TR (SGS)

C-MOS 64 K (8,184 × 8)-BIT NON-VOLATILE SRAM AND REAL TIME CLOCK

—TOP VIEW—


INT 1
A12 2
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
DQ0 11
DQ1 12
DQ2 13
14 GND
VDD 28
27 W
26 E2
25 A8
24 A9
23 A11
22 G
21 A10
20 E1
19 DQ7
18 DQ6
17 DQ5
16 DQ4
15 DQ3

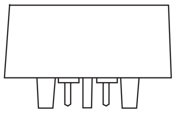

M4T28-BR12SH1
TOP HAT
M48T18-100MH1TR
32,768 Hz CRYSTAL
LITHIUM CELL
OSCILLATOR AND CLOCK CHAIN
8 × 8 BIPORT SRAM ARRAY
8184 × 8 SRAM ARRAY
VOLTAGE SENSE AND SWITCHING CIRCUITRY
POK
2 - 10, 23 - 25
A0 - A12
11 - 13, 15 - 19
DQ0 - DQ7
20 E1
26 E2
27 W
22 G
28 VDD
1 INT
14 GND

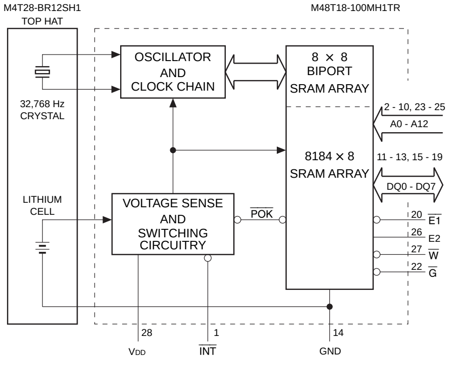
A0 - A12	:	ADDRESS INPUTS
DQ0 - DQ7	:	DATA INPUTS/OUTPUTS
INT	:	POWER FAIL INTERRUPT
E1	:	CHIP ENABLE 1
E2	:	CHIP ENABLE 2
G	:	OUTPUT ENABLE
W	:	WRITE ENABLE

M4T28-BR12SH1 (SGS)

LITHIUM BATTERY AND CRYSTAL

—SIDE VIEW—

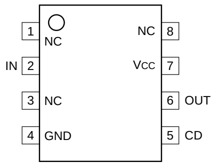



M4T28-BR12SH1
TOP HAT
M48T18-100MH1TR
32,768 Hz CRYSTAL
LITHIUM CELL
OSCILLATOR AND CLOCK CHAIN
8 × 8 BIPORT SRAM ARRAY
8184 × 8 SRAM ARRAY
VOLTAGE SENSE AND SWITCHING CIRCUITRY
POK
2 - 10, 23 - 25
A0 - A12
11 - 13, 15 - 19
DQ0 - DQ7
20 E1
26 E2
27 W
22 G
28 VDD
1 INT
14 GND

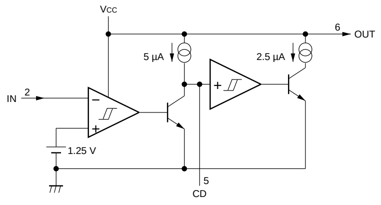
M51958AFP600D (MITSUBISHI)

VOLTAGE DETECT DELAY

—TOP VIEW—



1 NC
IN 2
3 NC
4 GND
NC 8
Vcc 7
6 OUT
5 CD

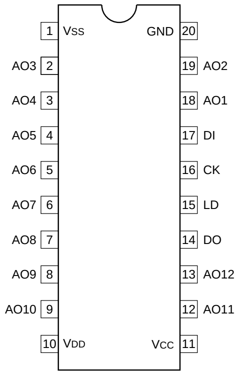


Vcc
6 OUT
5 µA
2.5 µA
IN 2
1.25 V
5
CD

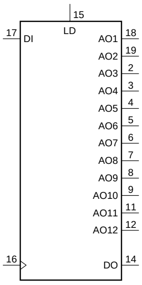
M62352GP (MITSUBISHI)
M62352GP-75ED

C-MOS 8-BIT × 12-CHANNEL D/A CONVERTER
(WITH BUFFER OPERATIONAL AMPLIFIER)

—TOP VIEW—

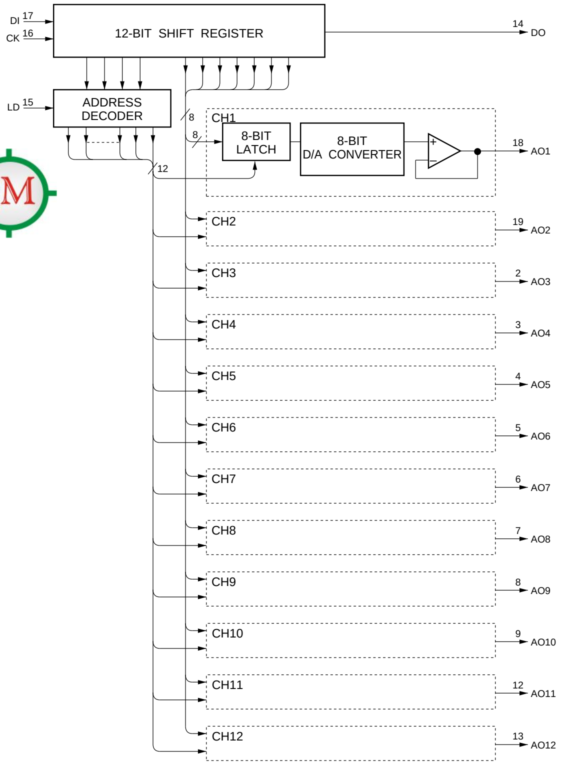


1 Vss
AO3 2
AO4 3
AO5 4
AO6 5
AO7 6
AO8 7
AO9 8
AO10 9
10 VDD
GND 20
19 AO2
18 AO1
17 DI
16 CK
15 LD
14 DO
13 AO12
12 AO11
Vcc 11



15 LD
17 DI
16
AO1 18
AO2 19
AO3 2
AO4 3
AO5 4
AO6 5
AO7 6
AO8 7
AO9 8
AO10 9
AO11 11
AO12 12
DO 14

AO1 - AO12 : 8-BIT D/A OUTPUTS
CK : CLOCK INPUT
DI : SERIAL DATA INPUT
DO : DATA OUTPUT

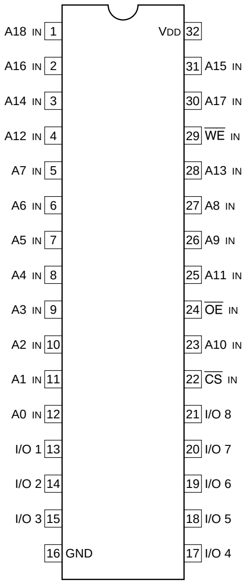


DI 17
CK 16
12-BIT SHIFT REGISTER
14 DO
LD 15
ADDRESS DECODER
12
8
8
CH1
8-BIT LATCH
8-BIT D/A CONVERTER
18 AO1
CH2
19 AO2
CH3
2 AO3
CH4
3 AO4
CH5
4 AO5
CH6
5 AO6
CH7
6 AO7
CH8
7 AO8
CH9
8 AO9
CH10
9 AO10
CH11
12 AO11
CH12
13 AO12

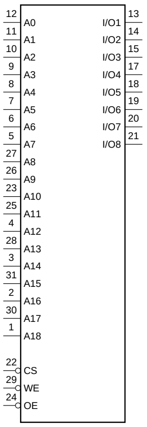
M5M5408ATP-55LL-EL (MITSUBISHI)

C-MOS 4 M (524,288 × 8)-BIT SRAM

—TOP VIEW—



A18 IN 1
A16 IN 2
A14 IN 3
A12 IN 4
A7 IN 5
A6 IN 6
A5 IN 7
A4 IN 8
A3 IN 9
A2 IN 10
A1 IN 11
A0 IN 12
I/O 1 13
I/O 2 14
I/O 3 15
16 GND
VDD 32
31 A15 IN
30 A17 IN
29 WE IN
28 A13 IN
27 A8 IN
26 A9 IN
25 A11 IN
24 OE IN
23 A10 IN
22 CS IN
21 I/O 8
20 I/O 7
19 I/O 6
18 I/O 5
17 I/O 4



12 A0
11 A1
10 A2
9 A3
8 A4
7 A5
6 A6
5 A7
27 A8
26 A9
23 A10
25 A11
4 A12
28 A13
3 A14
31 A15
2 A16
30 A17
1 A18
22 CS
29 WE
24 OE
I/O1 13
I/O2 14
I/O3 15
I/O4 17
I/O5 18
I/O6 19
I/O7 20
I/O8 21

INPUT

A0 - A18 ; ADDRESS
CS ; CHIP SELECT
OE ; OUTPUT ENABLE
WE ; WRITE ENABLE

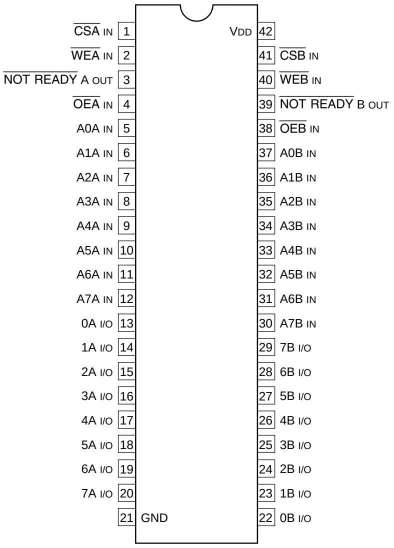
INPUT/OUTPUT

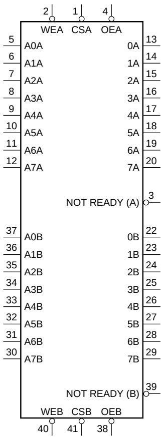
I/O1 - I/O8 ; I/O DATA

M66220FP-200D (MITSUBISHI)

C-MOS 2 K (256 × 8)-BIT DUAL PORT SRAM

—TOP VIEW—


CSA IN 1
WEA IN 2
NOT READY A OUT 3
OEA IN 4
A0A IN 5
A1A IN 6
A2A IN 7
A3A IN 8
A4A IN 9
A5A IN 10
A6A IN 11
A7A IN 12
0A I/O 13
1A I/O 14
2A I/O 15
3A I/O 16
4A I/O 17
5A I/O 18
6A I/O 19
7A I/O 20
21 GND
VDD 42
41 CSB IN
40 WEB IN
39 NOT READY B OUT
38 OEB IN
37 A0B IN
36 A1B IN
35 A2B IN
34 A3B IN
33 A4B IN
32 A5B IN
31 A6B IN
30 A7B IN
29 7B I/O
28 6B I/O
27 5B I/O
26 4B I/O
25 3B I/O
24 2B I/O
23 1B I/O
22 0B I/O


2 1 4
WEA CSA OEA
5 A0A 0A 13
6 A1A 1A 14
7 A2A 2A 15
8 A3A 3A 16
9 A4A 4A 17
10 A5A 5A 18
11 A6A 6A 19
12 A7A 7A 20
NOT READY (A) 3
37 A0B 0B 22
36 A1B 1B 23
35 A2B 2B 24
34 A3B 3B 25
33 A4B 4B 26
32 A5B 5B 27
31 A6B 6B 28
30 A7B 7B 29
NOT READY (B) 39
WEB CSB OEB
40 41 38

A PORT

INPUT

A0A - A7A : ADDRESS
OSA : CHIP SELECT
OEA : OUTPUT ENABLE
WEA : WRITE ENABLE

OUTPUT

NOT READY A : NOT READY A

INPUT/OUTPUT

0A - 7A : DATA

B PORT

INPUT

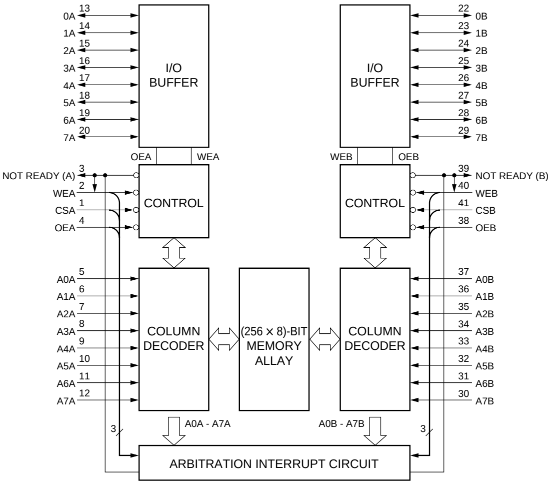
B0B - B7B : ADDRESS
OSB : CHIP SELECT
OEB : OUTPUT ENABLE
WEB : WRITE ENABLE

OUTPUT

NOT READY B : NOT READY B

INPUT/OUTPUT

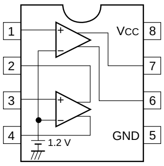
0B - 7B : DATA


0A 13
1A 14
2A 15
3A 16
4A 17
5A 18
6A 19
7A 20
I/O BUFFER
OEA WEA
NOT READY (A) 3
WEA 2
CSA 1
OEA 4
CONTROL
A0A 5
A1A 6
A2A 7
A3A 8
A4A 9
A5A 10
A6A 11
A7A 12
COLUMN DECODER
(256 × 8)-BIT MEMORY ALLAY
3
A0A - A7A
A0B - A7B
ARBITRATION INTERRUPT CIRCUIT
22 0B
23 1B
24 2B
25 3B
26 4B
27 5B
28 6B
29 7B
I/O BUFFER
WEB OEB
39 NOT READY (B)
40 WEB
41 CSB
38 OEB
CONTROL
37 A0B
36 A1B
35 A2B
34 A3B
33 A4B
32 A5B
31 A6B
30 A7B
COLUMN DECODER

MB3761PF-ER (FUJITSU)

VOLTAGE DETECTOR

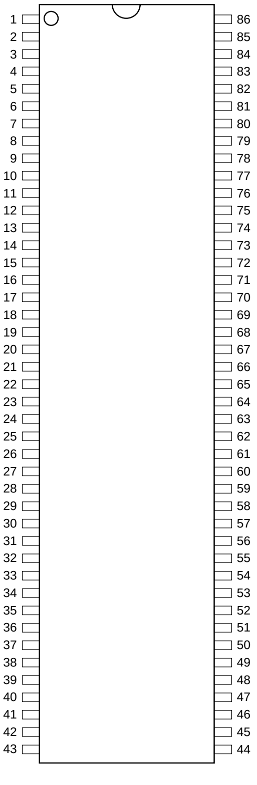
—TOP VIEW—


1
2
3
4
VCC 8
7
6
GND 5
1.2 V

MB811643242A-100FN (FUJITSU)

64M (512K×32×4)-BIT SDRAM

—TOP VIEW—


1
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3
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7
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9
10
11
12
13
14
15
16
17
18
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20
21
22
23
24
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86
85
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51
50
49
48
47
46
45
44

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	VCC	44	—	GND
2	I/O	DQ0	45	I	DQ24
3	—	VCC	46	—	GND
4	I/O	DQ1	47	I	DQ25
5	I/O	DQ2	48	I	DQ26
6	—	GND	49	—	VCC
7	I/O	DQ3	50	I	DQ27
8	I/O	DQ4	51	I	DQ28
9	—	VCC	52	—	GND
10	I/O	DQ5	53	I	DQ29
11	I/O	DQ6	54	I	DQ30
12	—	GND	55	—	VCC
13	I/O	DQ7	56	I	DQ31
14	—	NC	57	—	NC
15	—	VCC	58	—	GND
16	I	DQM0	59	I	DQM3
17	I	WE	60	I	A3
18	I	CAS	61	I	A4
19	I	RAS	62	I	A5
20	I	CS	63	I	A6
21	—	NC	64	I	A7
22	I	A12	65	I	A8
23	I	A11	66	I	A9
24	I	A10/AP	67	I	CKE
25	I	A0	68	I	CLK
26	I	A1	69	—	NC
27	I	A2	70	—	NC
28	I	DQM2	71	I	DQM1
29	—	VCC	72	—	GND
30	—	NC	73	—	NC
31	I	DQ16	74	I	DQ8
32	—	GND	75	—	VCC
33	I	DQ17	76	I	DQ9
34	I	DQ18	77	I	DQ10
35	—	VCC	78	—	GND
36	I	DQ19	79	I	DQ11
37	I	DQ20	80	I	DQ12
38	—	GND	81	—	VCC
39	I	DQ21	82	I	DQ13
40	I	DQ22	83	I	DQ14
41	—	VCC	84	—	GND
42	I	DQ23	85	I	DQ15
43	—	VCC	86	—	GND

INPUTS

A0 - A10 : ADDRESS
A11, A12 : BANK SELECT
AP : AUTO PRECHARGE ENABLE
CAS : COLUMN ADDRESS STROBE
CKE : CLOCK ENABLE
CLK : CLOCK
CS : CHIP SELECT
DQM0 - DQM3 : INPUT MASK/OUTPUT ENABLE
RAS : ROW ADDRESS STROBE
WE : WRITE ENABLE

INPUTS/OUTPUTS

DQ0 - DQ31 : DATA

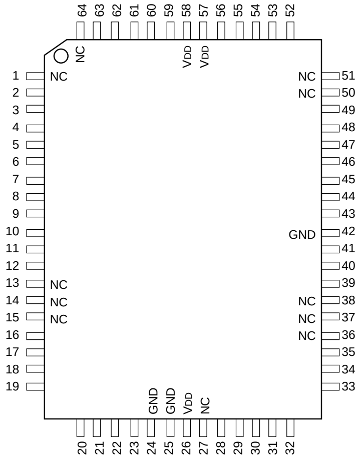
OTHER

NC : NO CONNECTION

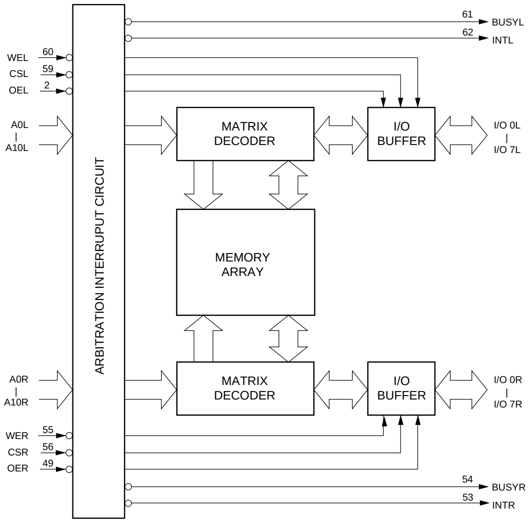
MB8421-90LPFQ (FUJITSU)(ACCESS TIME=90 nS)

C-MOS 16,384 (2 K × 8)-BIT DUAL PORT SRAM

—TOP VIEW—


64 63 62 61 60 59 58 57 56 55 54 53 52
NC
VDD
VDD
1 NC
2
3
4
5
6
7
8
9
10
11
12
13 NC
14 NC
15 NC
16
17
18
19
NC 51
NC 50
49
48
47
46
45
44
43
GND 42
41
40
39
NC 38
NC 37
NC 36
35
34
33
GND
GND
VDD
NC
20 21 22 23 24 25 26 27 28 29 30 31 32

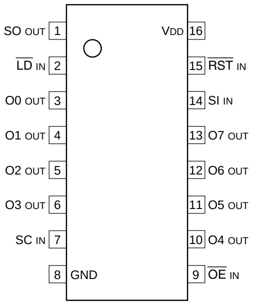
A0L - A10L, A0R - A10R	: ADDRESS INPUTS
I/O0L - I/O7L, I/O0R - I/O7R	: DATA INPUTS/OUTPUTS
$\overline{\text{CSL}}$, $\overline{\text{CSR}}$	: CHIP SELECT INPUT
$\overline{\text{WEL}}$, $\overline{\text{WER}}$	: WRITE ENABLE INPUT
$\overline{\text{OEL}}$, $\overline{\text{OER}}$	: OUTPUT ENABLE INPUT
$\overline{\text{BUSYL}}$, $\overline{\text{BUSYR}}$	: BUSY OUTPUT
$\overline{\text{INTL}}$, $\overline{\text{INTR}}$	: INTERRUPT OUTPUT

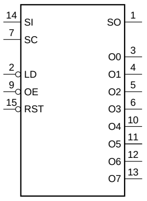

ARBITRATION INTERRUPUT CIRCUIT
61 BUSYL
62 INTL
WEL 60
CSL 59
OEL 2
A0L | A10L
MATRIX DECODER
I/O BUFFER
I/O 0L | I/O 7L
MEMORY ARRAY
A0R | A10R
MATRIX DECODER
I/O BUFFER
I/O 0R | I/O 7R
WER 55
CSR 56
OER 49
54 BUSYR
53 INTR

MB88306PF (FUJITSU)
MB88306PF-T2

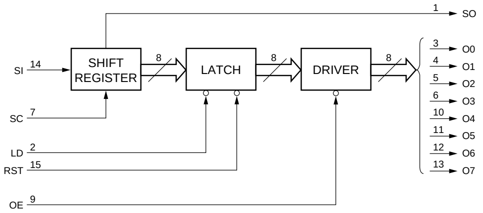
C-MOS OUTPUT EXPANDER

—TOP VIEW—


SO OUT 1
LD IN 2
O0 OUT 3
O1 OUT 4
O2 OUT 5
O3 OUT 6
SC IN 7
8 GND
VDD 16
15 RST IN
14 SI IN
13 O7 OUT
12 O6 OUT
11 O5 OUT
10 O4 OUT
9 OE IN


14 SI
7 SC
2 LD
9 OE
15 RST
SO 1
O0 3
O1 4
O2 5
O3 6
O4 10
O5 11
O6 12
O7 13

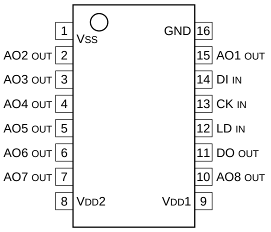
$\overline{\text{LD}}$	; DATA LOAD INPUT
O0 - O7	; 8-BIT PARALLEL OUTPUT
$\overline{\text{OE}}$	; OUTPUT ENABLE INPUT
$\overline{\text{RST}}$	; RESET INPUT
SC	; SHIFT CLOCK INPUT
SI	; SERIAL DATA INPUT
SO	; SERIAL DATA OUTPUT

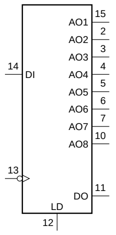

1 SO
SI 14
SHIFT REGISTER
8
LATCH
8
DRIVER
8
3 O0
4 O1
5 O2
6 O3
10 O4
11 O5
12 O6
13 O7
SC 7
LD 2
RST 15
OE 9

MB88347LPFV-G-BND-ER (FUJITSU)
MB88347PFV

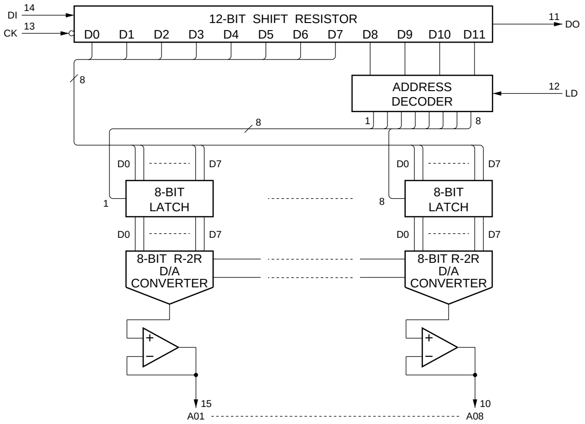
C-MOS D/A CONVERTER FOR DIGITAL TUNING

—TOP VIEW—


1 VSS
AO2 OUT 2
AO3 OUT 3
AO4 OUT 4
AO5 OUT 5
AO6 OUT 6
AO7 OUT 7
8 VDD2
GND 16
15 AO1 OUT
14 DI IN
13 CK IN
12 LD IN
11 DO OUT
10 AO8 OUT
VDD1 9


14 DI
13
AO1 15
AO2 2
AO3 3
AO4 4
AO5 5
AO6 6
AO7 7
AO8 10
DO 11
LD 12

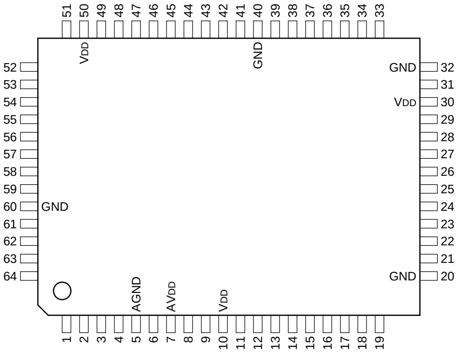
AO1 - AO8	: 8-BIT D/A OUTPUTS
CLK	: CLOCK INPUT
DI	: SERIAL DATA INPUT
DO	: DATA OUTPUT
LD	: DATA LOAD CONTROL INPUT (H : LOAD)

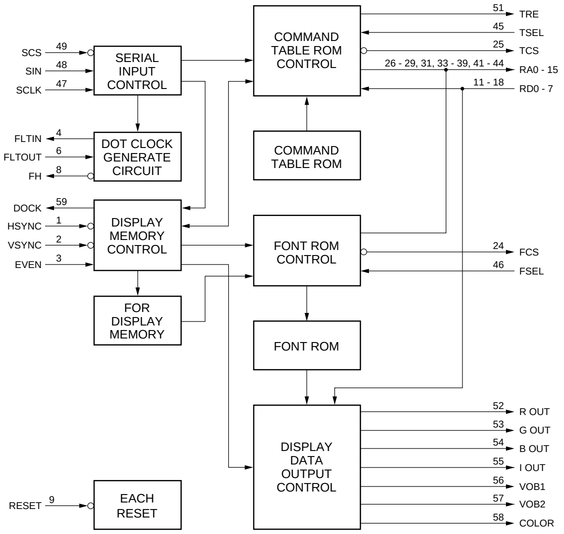

DI 14
CK 13
12-BIT SHIFT RESISTOR
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11
11 DO
8
ADDRESS DECODER
12 LD
1
8
8
D0 D7
D0 D7
1
8-BIT LATCH
8
8-BIT LATCH
D0 D7
D0 D7
8-BIT R-2R D/A CONVERTER
8-BIT R-2R D/A CONVERTER
15
A01
10
A08

MB90091A-120 (FUJITSU)

C-MOS ON SCREEN DISPLAY CONTROLLER

—TOP VIEW—


51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
VDD
GND
52 53 54 55 56 57 58 59 60 61 62 63 64
GND
GND
VDD
32 31 30 29 28 27 26 25 24 23 22 21 20
GND
AGND
AVDD
VDD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19


SCS 49
SIN 48
SCLK 47
SERIAL INPUT CONTROL
FLTIN 4
FLTOUT 6
FH 8
DOT CLOCK GENERATE CIRCUIT
DOCK 59
HSYNC 1
VSYNC 2
EVEN 3
DISPLAY MEMORY CONTROL
FOR DISPLAY MEMORY
RESET 9
EACH RESET
COMMAND TABLE ROM CONTROL
COMMAND TABLE ROM
FONT ROM CONTROL
FONT ROM
DISPLAY DATA OUTPUT CONTROL
51 TRE
45 TSEL
25 TCS
26 - 29, 31, 33 - 39, 41 - 44 RA0 - 15
11 - 18 RD0 - 7
24 FCS
46 FSEL
52 R OUT
53 G OUT
54 B OUT
55 I OUT
56 VOB1
57 VOB2
58 COLOR

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	$\overline{\text{HSYNC}}$	17	I	RD6	33	O	RA5	49	I	$\overline{\text{SCS}}$
2	I	$\overline{\text{VSYNC}}$	18	I	RD7	34	O	RA6	50	—	VDD
3	I	EVEN	19	I	TEST	35	O	RA7	51	O	TRE
4	O	FLTIN	20	—	GND	36	O	RA8	52	O	R OUT
5	—	AGND	21	O	TA16	37	O	RA9	53	O	G OUT
6	I	FLTOUT	22	O	TA17	38	O	RA10	54	O	B OUT
7	—	AVDD	23	O	TA18	39	O	RA11	55	O	I OUT
8	O	$\overline{\text{FH}}$	24	O	$\overline{\text{FCS}}$	40	—	GND	56	O	VOB1
9	I	$\overline{\text{RESET}}$	25	O	$\overline{\text{TCS}}$	41	O	RA12	57	O	VOB2
10	—	VDD	26	O	RA0	42	O	RA13	58	O	COLOR
11	I	RD0	27	O	RA1	43	O	RA14	59	O	DOCK
12	I	RD1	28	O	RA2	44	O	RA15	60	—	GND
13	I	RD2	29	O	RA3	45	I	TSEL	61	I	TESTCK
14	I	RD3	30	—	VDD	46	I	FSEL	62	I	TESTSW
15	I	RD4	31	O	RA4	47	I	SCLK	63	I	$\overline{\text{HBLNK}}$
16	I	RD5	32	—	GND	48	I	SIN	64	I	$\overline{\text{VBLNK}}$

INPUTS

EVEN	;	ODD/EVEN FIELD CONTROL (H = EVEN, L = ODD)
FLTOUT	;	INTERNAL VCO VOLTAGE
FSEL	;	FONT ROM INT/EXT SELECT
$\overline{\text{HBLNK}}$	;	HORIZONTAL BLANKING
$\overline{\text{HSYNC}}$	;	HORIZONTAL SYNC
RD0 - RD7	;	EXTERNAL ROM DATA
$\overline{\text{RESET}}$	;	SYSTEM RESET
SCLK	;	SERIAL SHIFT CLOCK
$\overline{\text{SCS}}$	;	CHIP SELECT
SIN	;	SERIAL DATA
TEST	;	TEST SIGNAL
TESTCK	;	TEST SIGNAL
TESTSW	;	TEST SIGNAL
TSEL	;	COMMAND TABLE ROM ADDRESS CONTROL
$\overline{\text{VBLNK}}$	;	VERTICAL BLANKING
$\overline{\text{VSYNC}}$	;	VERTICAL SYNC

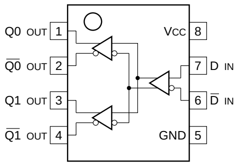
OUTPUTS

BOUT	;	B OUTPUT
COLOR	;	COLOR/BW SELECT
DOCK	;	DOT CLOCK
$\overline{\text{FCS}}$	;	EXTERNAL FONT ROM CHIP SELECT
$\overline{\text{FH}}$	;	HORIZONTAL PULSE
FLTIN	;	PHASE COMPARED SIGNAL
GOUT	;	G OUTPUT
IOUT	;	I OUTPUT
RA0 - RA15	;	EXTERNAL ROM ADDRESSES
ROUT	;	R OUTPUT
TA16 - TA18	;	TEST SIGNALS
$\overline{\text{TCS}}$	;	EXTERNAL COMMAND TABLE ROM CHIP SELECT
TRE	;	INTERNAL OPERATION STATUS
VOB1	;	COLOR SIGNAL OUTPUT PERIOD
VOB2	;	SPECIFIED CHARACTER OUTPUT PERIOD

MC10EL11DR2 (MOTOROLA)

ECL 1:2 DIFFERENTIAL FANOUT BUFFER

—TOP VIEW—

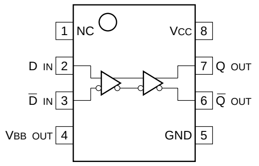

Q0 OUT 1
$\overline{\text{Q0}}$ OUT 2
Q1 OUT 3
$\overline{\text{Q1}}$ OUT 4
VCC 8
7 D IN
6 $\overline{\text{D}}$ IN
GND 5

D	;	DATA INPUT
Q0, Q1	;	DATA OUTPUT

MC10EL16DR2 (MOTOROLA)

ECL DIFFERENTIAL RECEIVER

—TOP VIEW—

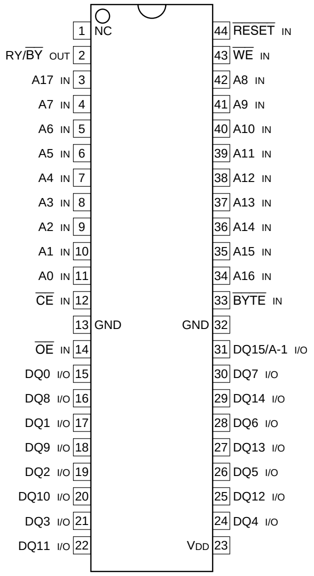

1 NC
D IN 2
$\overline{\text{D}}$ IN 3
VBB OUT 4
VCC 8
7 Q OUT
6 $\overline{\text{Q}}$ OUT
GND 5

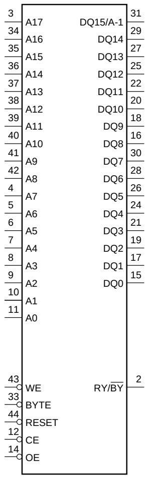
D	;	DATA INPUT
Q	;	DATA OUTPUT
VBB	;	REFERENCE VOLTAGE OUTPUT

MBM29F400BC-90PF (FUJITSU)

4 M (524,288 × 8/262,144 × 16)-BIT FLASH MEMORY

—TOP VIEW—


1 NC
2 RY/$\overline{\text{BY}}$ OUT
3 A17 IN
4 A7 IN
5 A6 IN
6 A5 IN
7 A4 IN
8 A3 IN
9 A2 IN
10 A1 IN
11 A0 IN
12 $\overline{\text{CE}}$ IN
13 GND
14 $\overline{\text{OE}}$ IN
15 DQ0 I/O
16 DQ8 I/O
17 DQ1 I/O
18 DQ9 I/O
19 DQ2 I/O
20 DQ10 I/O
21 DQ3 I/O
22 DQ11 I/O
23 VDD
24 DQ4 I/O
25 DQ12 I/O
26 DQ5 I/O
27 DQ13 I/O
28 DQ6 I/O
29 DQ14 I/O
30 DQ7 I/O
31 DQ15/A-1 I/O
32 GND
33 $\overline{\text{BYTE}}$ IN
34 A16 IN
35 A15 IN
36 A14 IN
37 A13 IN
38 A12 IN
39 A11 IN
40 A10 IN
41 A9 IN
42 A8 IN
43 $\overline{\text{WE}}$ IN
44 $\overline{\text{RESET}}$ IN


3 A17
34 A16
35 A15
36 A14
37 A13
38 A12
39 A11
40 A10
41 A9
42 A8
4 A7
5 A6
6 A5
7 A4
8 A3
9 A2
10 A1
11 A0
43 WE
33 BYTE
44 RESET
12 CE
14 OE
31 DQ15/A-1
29 DQ14
27 DQ13
25 DQ12
22 DQ11
20 DQ10
18 DQ9
16 DQ8
30 DQ7
28 DQ6
26 DQ5
24 DQ4
21 DQ3
19 DQ2
17 DQ1
15 DQ0
2 RY/$\overline{\text{BY}}$

INPUTS

A0 - A17, A-1 : ADDRESS

$\overline{\text{BYTE}}$: 8-BIT, 16-BIT MODE SELECT

$\overline{\text{CE}}$: CHIP ENABLE

$\overline{\text{OE}}$: OUTPUT ENABLE

$\overline{\text{RESET}}$: HARDWARE RESET

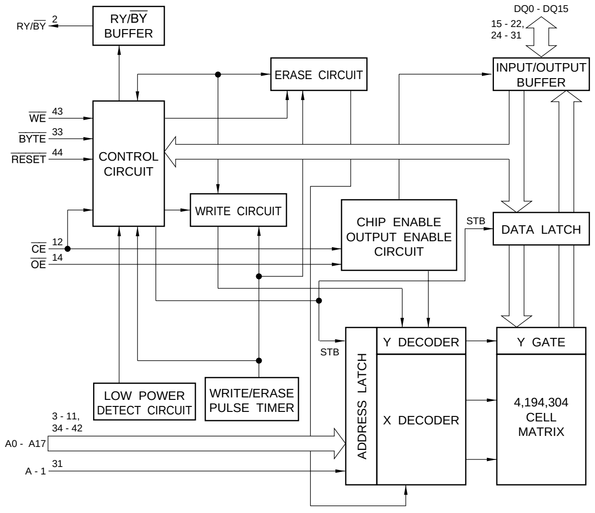
$\overline{\text{WE}}$: WRITE ENABLE

OUTPUTS

RY/$\overline{\text{BY}}$: READY/BUSY

INPUTS/OUTPUTS

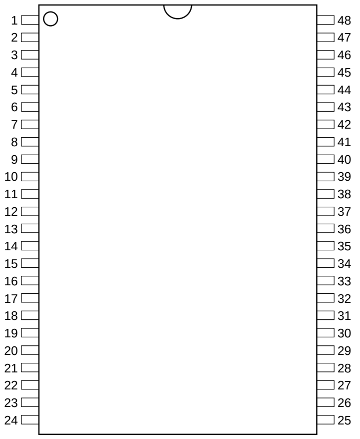
DQ0 - DQ15 : DATA


RY/$\overline{\text{BY}}$ 2
RY/$\overline{\text{BY}}$ BUFFER
DQ0 - DQ15
15 - 22, 24 - 31
ERASE CIRCUIT
INPUT/OUTPUT BUFFER
$\overline{\text{WE}}$ 43
$\overline{\text{BYTE}}$ 33
$\overline{\text{RESET}}$ 44
CONTROL CIRCUIT
WRITE CIRCUIT
CHIP ENABLE OUTPUT ENABLE CIRCUIT
STB
DATA LATCH
$\overline{\text{CE}}$ 12
$\overline{\text{OE}}$ 14
STB
Y DECODER
Y GATE
ADDRESS LATCH
X DECODER
4,194,304 CELL MATRIX
LOW POWER DETECT CIRCUIT
WRITE/ERASE PULSE TIMER
3 - 11, 34 - 42
A0 - A17
31
A - 1

MBM29F800BA-90PF (FUJITSU)

8 M (1,048,576 × 8/524,288 × 16)-BIT FLASH MEMORY

—TOP VIEW—


1
2
3
4
5
6
7
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9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48

INPUTS

A0 - A18, A - 1 : ADDRESS

$\overline{\text{BYTE}}$: 8-BIT, 16-BIT MODE SELECT

$\overline{\text{CE}}$: CHIP ENABLE

$\overline{\text{OE}}$: OUTPUT ENABLE

$\overline{\text{RESET}}$: HARDWARE RESET

$\overline{\text{WE}}$: WRITE ENABLE

OUTPUTS

RY/$\overline{\text{BY}}$: READY/BUSY

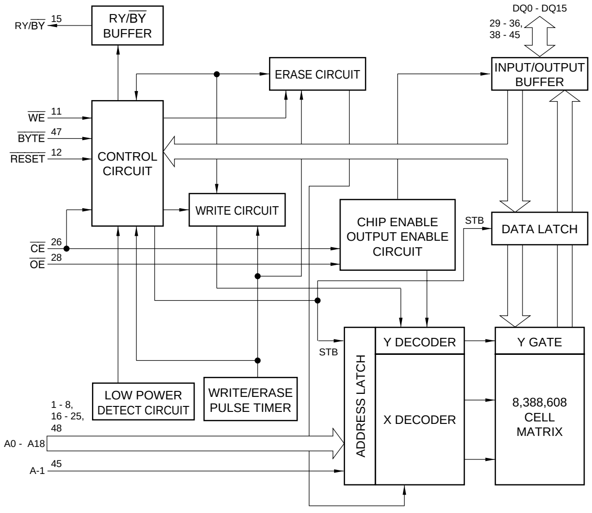
INPUTS/OUTPUTS

DQ0 - DQ15 : DATA

OTHER

NC : NO CONNECTION

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	A15	13	—	NC	25	I	A0	37	—	V_{CC}
2	I	A14	14	—	NC	26	I	$\overline{\text{CE}}$	38	I/O	DQ4
3	I	A13	15	O	RY/$\overline{\text{BY}}$	27	—	V_{EE}	39	I/O	DQ12
4	I	A12	16	I	A18	28	I	$\overline{\text{OE}}$	40	I/O	DQ5
5	I	A11	17	I	A17	29	I/O	DQ0	41	I/O	DQ13
6	I	A10	18	I	A7	30	I/O	DQ8	42	I/O	DQ6
7	I	A9	19	I	A6	31	I/O	DQ1	43	I/O	DQ14
8	I	A8	20	I	A5	32	I/O	DQ9	44	I/O	DQ7
9	—	NC	21	I	A4	33	I/O	DQ2	45	I/O	DQ15/A-1
10	—	NC	22	I	A3	34	I/O	DQ10	46	—	V_{EE}
11	I	$\overline{\text{WE}}$	23	I	A2	35	I/O	DQ3	47	I	$\overline{\text{BYTE}}$
12	I	$\overline{\text{RESET}}$	24	I	A1	36	I/O	DQ11	48	I	A16

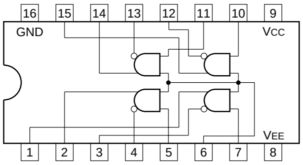

RY/$\overline{\text{BY}}$ 15
RY/$\overline{\text{BY}}$ BUFFER
DQ0 - DQ15
29 - 36, 38 - 45
ERASE CIRCUIT
INPUT/OUTPUT BUFFER
$\overline{\text{WE}}$ 11
$\overline{\text{BYTE}}$ 47
$\overline{\text{RESET}}$ 12
CONTROL CIRCUIT
WRITE CIRCUIT
CHIP ENABLE OUTPUT ENABLE CIRCUIT
STB
DATA LATCH
$\overline{\text{CE}}$ 26
$\overline{\text{OE}}$ 28
STB
Y DECODER
Y GATE
ADDRESS LATCH
X DECODER
8,388,608 CELL MATRIX
LOW POWER DETECT CIRCUIT
WRITE/ERASE PULSE TIMER
1 - 8, 16 - 25, 48
A0 - A18
45
A-1

http://getMANUAL.com

MC10H124M (MOTOROLA)
MC10H124MEL

ECL TTL-TO-ECL TRANSLATOR

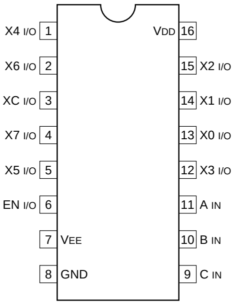
—TOP VIEW—

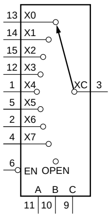

16
15
14
13
12
11
10
9
GND
VCC
VEE
1
2
3
4
5
6
7
8

MC14051BF (MOTOROLA)
MC14051BFEL

C-MOS 8-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER

—TOP VIEW—


X4 I/O 1
X6 I/O 2
XC I/O 3
X7 I/O 4
X5 I/O 5
EN I/O 6
7 VEE
8 GND
VDD 16
15 X2 I/O
14 X1 I/O
13 X0 I/O
12 X3 I/O
11 A IN
10 B IN
9 C IN


13 X0
14 X1
15 X2
12 X3
1 X4
5 X5
2 X6
4 X7
XC 3
6 EN OPEN
A B C
11 10 9

CONTROL INPUTS				SELECTED CHANNEL
EN	SELECT			
	C	B	A	
0	0	0	0	X0
0	0	0	1	X1
0	0	1	0	X2
0	0	1	1	X3
0	1	0	0	X4
0	1	0	1	X5
0	1	1	0	X6
0	1	1	1	X7
1	×	×	×	OPEN

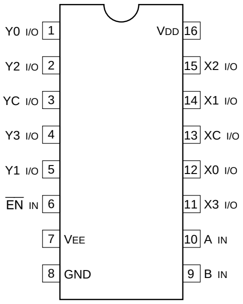
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

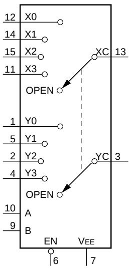
X0 to X7	ANALOG INPUTS/OUTPUTS
XC	COMMON INPUT/OUTPUT
A, B, C	CHANNEL SELECT INPUT
EN	ENABLE INPUT

MC14052BF (MOTOROLA)
MC14052BFEL

C-MOS DUAL 4-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS

—TOP VIEW—


Y0 I/O 1
Y2 I/O 2
YC I/O 3
Y3 I/O 4
Y1 I/O 5
EN IN 6
7 VEE
8 GND
VDD 16
15 X2 I/O
14 X1 I/O
13 XC I/O
12 X0 I/O
11 X3 I/O
10 A IN
9 B IN


12 X0
14 X1
15 X2
11 X3
XC 13
OPEN
1 Y0
5 Y1
2 Y2
4 Y3
YC 3
OPEN
10 A
9 B
EN
VEE
6
7

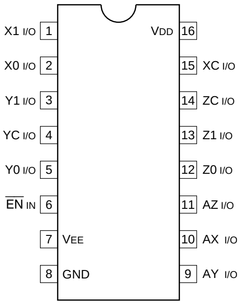
CONTROL INPUTS			ON CHANNEL
EN	B	A	
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	×	×	OPEN

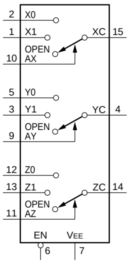
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

MC14053BF (MOTOROLA)
MC14053BFEL
TC4053BFT(EL,N) (TOSHIBA)

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS

—TOP VIEW—


X1 I/O 1
X0 I/O 2
Y1 I/O 3
YC I/O 4
Y0 I/O 5
EN IN 6
7 VEE
8 GND
VDD 16
15 XC I/O
14 ZC I/O
13 Z1 I/O
12 Z0 I/O
11 AZ I/O
10 AX I/O
9 AY I/O


2 X0
1 X1
XC 15
OPEN
10 AX
5 Y0
3 Y1
YC 4
OPEN
9 AY
12 Z0
13 Z1
ZC 14
OPEN
11 AZ
EN
VEE
6
7

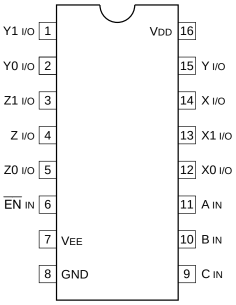
CONT. INPUTS		ON CHANNEL
EN	A (X, Y, Z)	
0	0	0
0	1	1
1	×	OPEN

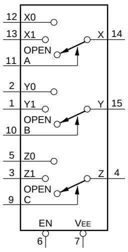
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

MC74HC4053F (MOTOROLA)
TC74HC4053AF(EL)

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER

—TOP VIEW—


Y1 I/O 1
Y0 I/O 2
Z1 I/O 3
Z I/O 4
Z0 I/O 5
EN IN 6
7 VEE
8 GND
VDD 16
15 Y I/O
14 X I/O
13 X1 I/O
12 X0 I/O
11 A IN
10 B IN
9 C IN

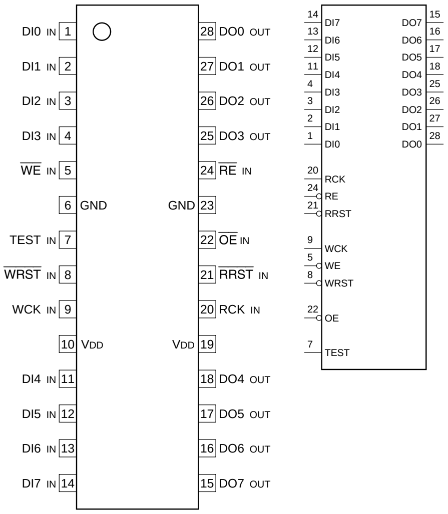

12 X0
13 X1
X 14
OPEN
11 A
2 Y0
1 Y1
Y 15
OPEN
10 B
5 Z0
3 Z1
Z 4
OPEN
9 C
EN
VEE
6
7

CONTROL INPUTS				ON CHANNEL		
EN	SELECT					
	C	B	A			
0	0	0	0	Z0	Y0	X0
0	0	0	1	Z0	Y0	X1
0	0	1	0	Z0	Y1	X0
0	0	1	1	Z0	Y1	X1
0	1	0	0	Z1	Y0	X0
0	1	0	1	Z1	Y0	X1
0	1	1	0	Z1	Y1	X0
0	1	1	1	Z1	Y1	X1
1	×	×	×	OPEN		

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

MN47V77ST1 (MATSUSHITA)

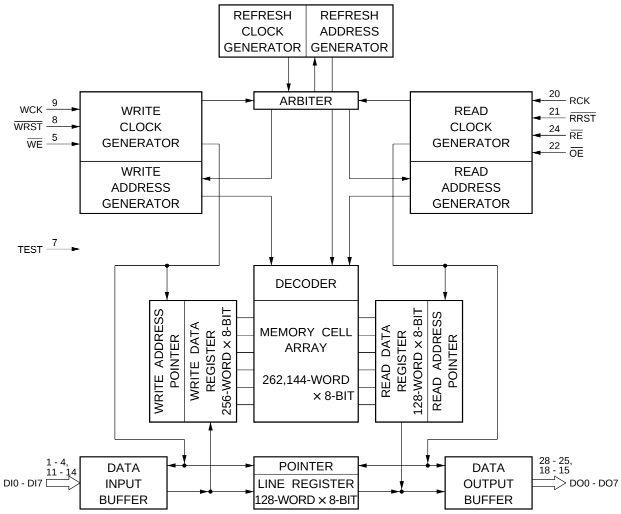
C-MOS 2 M (262,272-WORD × 8)-BIT FIFO (3.3 V) MEMORY
—TOP VIEW—


DI0 IN 1
DI1 IN 2
DI2 IN 3
DI3 IN 4
WE IN 5
6 GND
TEST IN 7
WRST IN 8
WCK IN 9
10 VDD
DI4 IN 11
DI5 IN 12
DI6 IN 13
DI7 IN 14
28 DO0 OUT
27 DO1 OUT
26 DO2 OUT
25 DO3 OUT
24 RE IN
GND 23
22 OE IN
21 RRST IN
20 RCK IN
VDD 19
18 DO4 OUT
17 DO5 OUT
16 DO6 OUT
15 DO7 OUT
14 DI7
13 DI6
12 DI5
11 DI4
4 DI3
3 DI2
2 DI1
1 DI0
20 RCK
24 RE
21 RRST
9 WCK
5 WE
8 WRST
22 OE
7 TEST
DO7 15
DO6 16
DO5 17
DO4 18
DO3 25
DO2 26
DO1 27
DO0 28

INPUT		
DI0 - DI7	;	DATA
OE	;	OUTPUT ENABLE
RCK	;	READ CLOCK
RE	;	READ ENABLE
RRST	;	READ RESET
TEST	;	TEST
WCK	;	WRITE CLOCK
WE	;	WRITE ENABLE
WRST	;	WRITE RESET

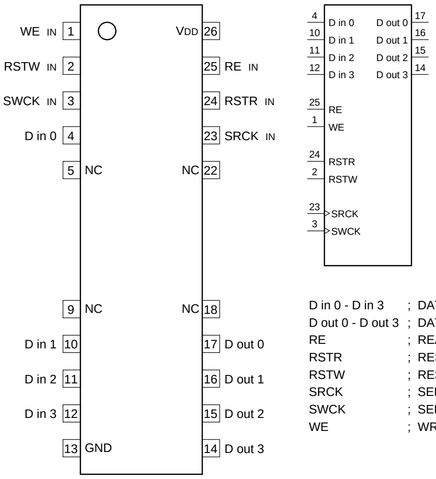
OUTPUT

DO0 - DO7 ; DATA

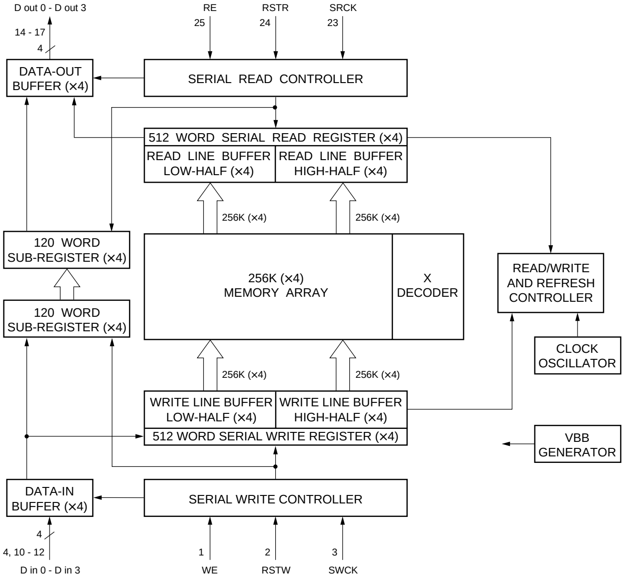

REFRESH CLOCK GENERATOR
REFRESH ADDRESS GENERATOR
ARBITER
WCK 9
WRST 8
WE 5
WRITE CLOCK GENERATOR
WRITE ADDRESS GENERATOR
20 RCK
21 RRST
24 RE
22 OE
READ CLOCK GENERATOR
READ ADDRESS GENERATOR
TEST 7
DECODER
WRITE ADDRESS POINTER
WRITE DATA REGISTER 256-WORD × 8-BIT
MEMORY CELL ARRAY
262,144-WORD × 8-BIT
READ DATA REGISTER 128-WORD × 8-BIT
READ ADDRESS POINTER
1 - 4, 11 - 14
DI0 - DI7
DATA INPUT BUFFER
POINTER
LINE REGISTER 128-WORD × 8-BIT
DATA OUTPUT BUFFER
28 - 25, 18 - 15
DO0 - DO7

MSM514221B-30JS (OKI)

C-MOS 1M (262,263 × 4)-BIT FIELD MEMORY
—TOP VIEW—


WE IN 1
RSTW IN 2
SWCK IN 3
D in 0 4
5 NC
9 NC
D in 1 10
D in 2 11
D in 3 12
13 GND
VDD 26
25 RE IN
24 RSTR IN
23 SRCK IN
NC 22
NC 18
17 D out 0
16 D out 1
15 D out 2
14 D out 3
4 D in 0
10 D in 1
11 D in 2
12 D in 3
25 RE
1 WE
24 RSTR
2 RSTW
23 SRCK
3 SWCK
D out 0 17
D out 1 16
D out 2 15
D out 3 14

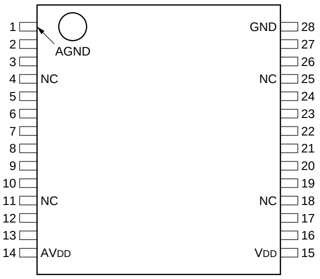
D in 0 - D in 3	;	DATA INPUTS
D out 0 - D out 3	;	DATA OUTPUTS
RE	;	READ ENABLE INPUT
RSTR	;	RESET READ INPUT
RSTW	;	RESET WRITE INPUT
SRCK	;	SERIAL READ CLOCK
SWCK	;	SERIAL WRITE CLOCK
WE	;	WRITE ENABLE INPUT

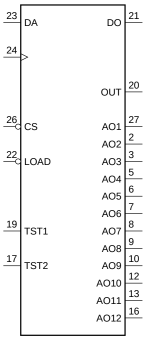

D out 0 - D out 3
14 - 17
4
RE 25
RSTR 24
SRCK 23
DATA-OUT BUFFER (×4)
SERIAL READ CONTROLLER
512 WORD SERIAL READ REGISTER (×4)
READ LINE BUFFER LOW-HALF (×4)
READ LINE BUFFER HIGH-HALF (×4)
256K (×4)
120 WORD SUB-REGISTER (×4)
256K (×4) MEMORY ARRAY
X DECODER
READ/WRITE AND REFRESH CONTROLLER
CLOCK OSCILLATOR
WRITE LINE BUFFER LOW-HALF (×4)
WRITE LINE BUFFER HIGH-HALF (×4)
512 WORD SERIAL WRITE REGISTER (×4)
VBB GENERATOR
DATA-IN BUFFER (×4)
SERIAL WRITE CONTROLLER
4
4, 10 - 12
D in 0 - D in 3
1 WE
2 RSTW
3 SWCK

MSM6524GS-KR1 (OKI)

C-MOS 12 CHANNELS 8-BITS D-A CONVERTER WITH 96-BIT EEPROM

—TOP VIEW—


AGND
GND
NC
NC
NC
NC
AV_{DD}
V_{DD}
1
2
3
4
5
6
7
8
9
10
11
12
13
14
28
27
26
25
24
23
22
21
20
19
18
17
16
15


23 DA
DO 21
24
OUT 20
26 CS
22 LOAD
19 TST1
17 TST2
AO1 27
AO2 2
AO3 3
AO4 5
AO5 6
AO6 7
AO7 8
AO8 9
AO9 10
AO10 12
AO11 13
AO12 16

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	A GND	15	—	V_{DD}
2	O	AO2	16	O	AO12
3	O	AO3	17	I	TST2
4	—	NC	18	—	NC
5	O	AO4	19	I	TST1
6	O	AO5	20	O	OUT
7	O	AO6	21	O	DO
8	O	AO7	22	I	LOAD
9	O	AO8	23	I	DA
10	O	AO9	24	I	CLK
11	—	NC	25	—	NC
12	O	AO10	26	I	$\overline{\text{CS}}$
13	O	AO11	27	O	AO1
14	—	AV_{DD}	28	—	GND

INPUT

CLK	; SHIFT CLOCK
CS	; WRITE MODE PROTECT
DA	; SERIAL DATA
LOAD	; LOAD INPUT OF 8-BIT SHIFT REGISTER
TST1, TST2	; TEST PINS

OUTPUT

AO0 - AO12	; 8-BIT D/A OUTPUTS
DO	; LSB BIT DATA OF 8-BIT SHIFT REGISTER
OUT	; MONITOR PIN

MODE (1) WRITE

1st BYTE								2nd BYTE							
D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7
1	0	0	1	A0	A1	A2	A3	10	11	12	13	14	15	16	17
MODE SELECT				ADDRESS SELECT				DA DATA SET							

MODE (2) LOAD

1st BYTE								2nd BYTE							
D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7
1	1	1	1	A0	A1	A2	A3	10	11	12	13	14	15	16	17
MODE SELECT				ADDRESS SELECT				DA DATA SET							

MODE (3) MEMORY TEST

1st BYTE								2nd BYTE							
D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7
0	0	1	1	A0	A1	A2	A3	O0	O1	O2	O3	O4	O5	O6	O7
MODE SELECT				ADDRESS SELECT				MEMORY DATA OUTPUT							

0 ; LOW LEVEL
1 ; HIGH LEVEL

MODE SELECT

D0	D1	D2	D3	MODE SELECT
1	0	0	1	MODE1
1	1	1	1	MODE2
0	0	1	1	MODE3
OTHERS				DON'T CARE

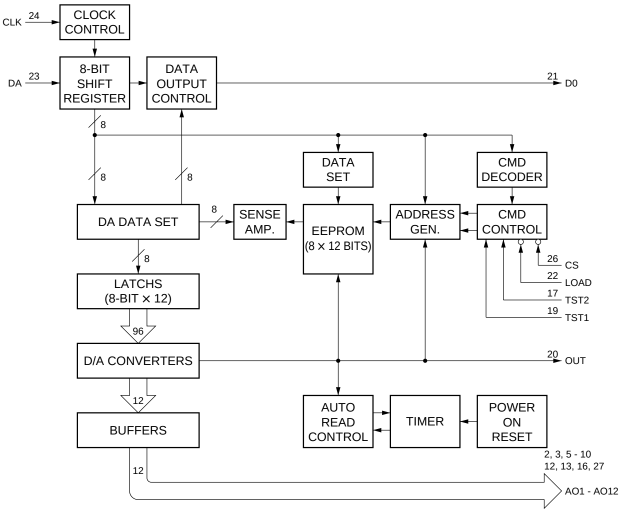
ADDRESS SELECT

D4	D5	D6	D7	ADDRESS SELECT
A0	A1	A2	A3	
0	0	0	0	DON'T CARE
1	0	0	0	AO1
0	1	0	0	AO2
1	1	0	0	AO3
0	0	1	0	AO4
1	0	1	0	AO5
0	1	1	0	AO6
1	1	1	0	AO7
0	0	0	1	AO8
1	0	0	1	AO9
0	1	0	1	AO10
1	1	0	1	AO11
0	0	1	1	AO12
1	0	1	1	DON'T CARE
0	1	1	1	DON'T CARE
1	1	1	1	DON'T CARE

D/A OUTPUT

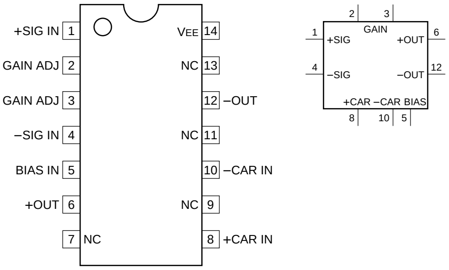
D0	D1	D2	D3	D4	D5	D6	D7	D/A OUTPUT
10	11	12	13	14	15	16	17	
0	0	0	0	0	0	0	0	≒ VOLA + (VOHA−VOLA)/256 × 1
1	0	0	0	0	0	0	0	≒ VOLA + (VOHA−VOLA)/256 × 2
0	1	0	0	0	0	0	0	≒ VOLA + (VOHA−VOLA)/256 × 3
1	1	0	0	0	0	0	0	≒ VOLA + (VOHA−VOLA)/256 × 4
0	0	1	0	0	0	0	0	≒ VOLA + (VOHA−VOLA)/256 × 5
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮ ⋮ ⋮
1	0	1	1	1	1	1	1	≒ VOLA + (VOHA−VOLA)/256 × 256
0	0	1	1	1	1	1	1	≒ VOLA + (VOHA−VOLA)/256 × 254
1	1	1	1	1	1	1	1	≒ VOLA + (VOHA−VOLA)/256 × 255
0	1	1	1	1	1	1	1	≒ VOLH

0 ; LOW LEVEL
1 ; HIGH LEVEL


CLK 24
CLOCK CONTROL
DA 23
8-BIT SHIFT REGISTER
DATA OUTPUT CONTROL
21 D0
8
8
8
DATA SET
CMD DECODER
DA DATA SET
8
SENSE AMP.
EEPROM (8 × 12 BITS)
ADDRESS GEN.
CMD CONTROL
8
26 CS
22 LOAD
17 TST2
19 TST1
LATCHS (8-BIT × 12)
96
D/A CONVERTERS
20 OUT
12
BUFFERS
AUTO READ CONTROL
TIMER
POWER ON RESET
2, 3, 5 - 10
12, 13, 16, 27
12
AO1 - AO12

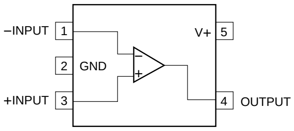
NJM1496V-TE2 (JRC)

BALANCED MODULATOR/DEMODULATOR
—TOP VIEW—


+SIG IN 1
GAIN ADJ 2
GAIN ADJ 3
−SIG IN 4
BIAS IN 5
+OUT 6
7 NC
VEE 14
NC 13
12 −OUT
NC 11
10 −CAR IN
NC 9
8 +CAR IN
2
3
GAIN
1
+SIG
+OUT
6
4
−SIG
−OUT
12
+CAR −CAR BIAS
8
10
5

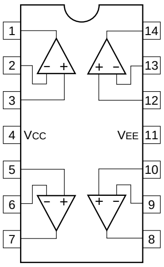
NJM2406F (JRC)
NJM2406F-TE2

SINGLE COMPARATOR
—TOP VIEW—


−INPUT 1
2 GND
+INPUT 3
V+ 5
4 OUTPUT
−
+

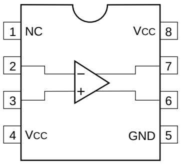
NJM3403AM (JRC)
NJM3403AM(TE2)

QUAD OPERATIONAL AMPLIFIER
—TOP VIEW—


1
2
3
4 VCC
5
6
7
14
13
12
VEE 11
10
9
8
- +
+ -
- +
+ -

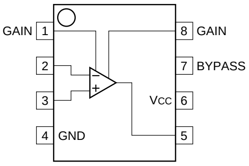
NJM360M (JRC)
NJM360M-TE2

HIGH SPEED VOLTAGE COMPARATOR
—TOP VIEW—


1 NC
2
3
4 VCC
VCC 8
7
6
GND 5
−
+

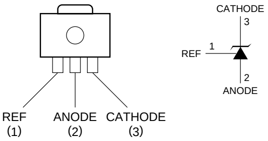
NJM386BM (JRC)

AUDIO POWER AMPLIFIER
—TOP VIEW—


GAIN 1
2
3
4 GND
8 GAIN
7 BYPASS
VCC 6
5
−
+

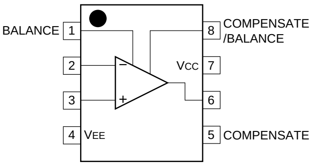
NJM431U (JRC)
NJM431U-TE1

ADJUSTABLE PRECISION SHUNT REGULATOR
—FRONT VIEW—


REF
(1)
ANODE
(2)
CATHODE
(3)
CATHODE
3
REF
1
2
ANODE

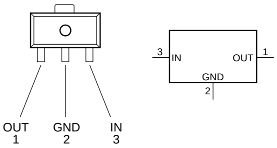
NJM5534M (JRC)
NJM5534M-T2

OPERATINAL AMPLIFIER
—TOP VIEW—


BALANCE 1
2
3
4 VEE
8 COMPENSATE /BALANCE
VCC 7
6
5 COMPENSATE
−
+

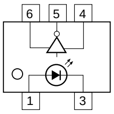
NJM78L05UA (JRC)+5 V(100 mA)
NJM78L05UA-TE1

POSITIVE VOLTAGE REGULATOR
—SIDE VIEW—


OUT
1
GND
2
IN
3
3
IN
OUT
1
GND
2

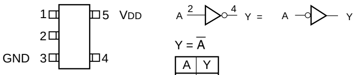
PC410 (SHARP)
PC410T

PHOTOCOUPLER
—TOP VIEW—



SC7S04F (MOTOROLA)
TC4S69F (TOSHIBA)
TC4S69F(TE85R)
TC4SU69F (TOSHIBA)
TC4SU69F(TE85R)
TC7S04F(TE85R)
TC7S04FU(TE85R) (TOSHIBA)

C-MOS INVERTER
—TOP VIEW—


1
2
GND 3
5 VDD
4
A 2
4 Y =
A
Y

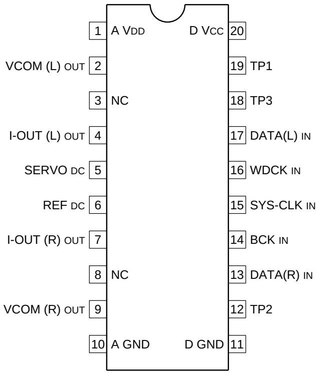
Y = $\overline{A}$

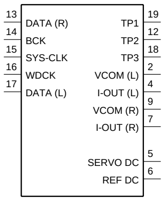
A	Y
0	1
1	0

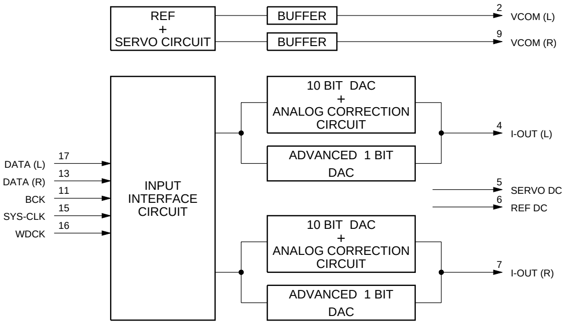
0 : LOW LEVEL
1 : HIGH LEVEL

PCM69U-J/2K (BURR-BROWN)

C-MOS DUAL 18-BIT D/A CONVERTER
—TOP VIEW—

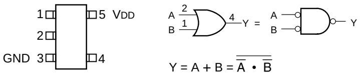

1 A VDD
VCOM (L) OUT 2
3 NC
I-OUT (L) OUT 4
SERVO DC 5
REF DC 6
I-OUT (R) OUT 7
8 NC
VCOM (R) OUT 9
10 A GND
D VCC 20
19 TP1
18 TP3
17 DATA(L) IN
16 WDCK IN
15 SYS-CLK IN
14 BCK IN
13 DATA(R) IN
12 TP2
D GND 11


13 DATA (R)
14 BCK
15 SYS-CLK
16 WDCK
17 DATA (L)
TP1 19
TP2 12
TP3 18
VCOM (L) 2
I-OUT (L) 4
VCOM (R) 9
I-OUT (R) 7
SERVO DC 5
REF DC 6


REF
+
SERVO CIRCUIT
BUFFER
BUFFER
2 VCOM (L)
9 VCOM (R)
DATA (L) 17
DATA (R) 13
BCK 11
SYS-CLK 15
WDCK 16
INPUT
INTERFACE
CIRCUIT
10 BIT DAC
+
ANALOG CORRECTION
CIRCUIT
ADVANCED 1 BIT
DAC
4 I-OUT (L)
5 SERVO DC
6 REF DC
10 BIT DAC
+
ANALOG CORRECTION
CIRCUIT
ADVANCED 1 BIT
DAC
7 I-OUT (R)

SC7S32F (MOTOROLA)
TC7S32F(TE85R)

C-MOS 2-INPUT OR GATE
—TOP VIEW—


1
2
GND 3
5 VDD
4
A 2
B 1
4 Y =
A
B
Y

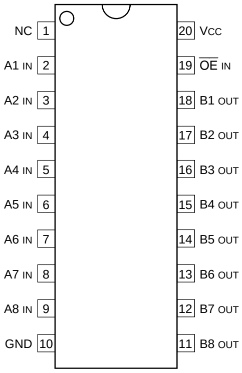
Y = A + B = $\overline{\overline{A} \cdot \overline{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0 : LOW LEVEL
1 : HIGH LEVEL

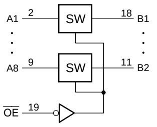
SN74CBTLV3245PW-E05 (TI)

OCTAL FET BUS SWITCH
—TOP VIEW—


NC 1
A1 IN 2
A2 IN 3
A3 IN 4
A4 IN 5
A5 IN 6
A6 IN 7
A7 IN 8
A8 IN 9
GND 10
20 VCC
19 OE IN
18 B1 OUT
17 B2 OUT
16 B3 OUT
15 B4 OUT
14 B5 OUT
13 B6 OUT
12 B7 OUT
11 B8 OUT

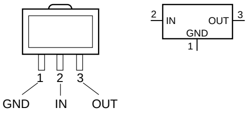
INPUT $\overline{OE}$	FUNCTION
0	A = B
1	DISCONNECT

0 : LOW LEVEL
1 : HIGH LEVEL


A1 2
SW
18 B1
A8 9
SW
11 B2
OE 19

S-81250SGUP-DQD-T1 (SEIKO I&E)+5.0 V

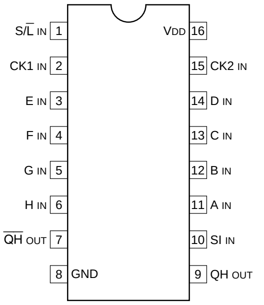
THREE TERMINAL POSITIVE VOLTAGE REGULATOR
—TOP VIEW—

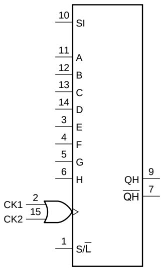

1 2 3
GND IN OUT
2 IN
OUT 3
GND
1

SN74HC165ANS (TI)
SN74HC165ANS-E05
TC74VHC165FT(EL) (TOSHIBA)

C-MOS SERIAL-OR PARALLEL-INPUT SHIFT REGISTER

—TOP VIEW—

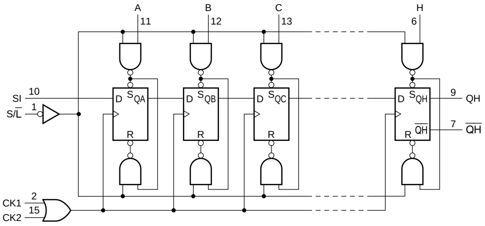

S/$\overline{L}$ IN 1
CK1 IN 2
E IN 3
F IN 4
G IN 5
H IN 6
$\overline{QH}$ OUT 7
8 GND
VDD 16
15 CK2 IN
14 D IN
13 C IN
12 B IN
11 A IN
10 SI IN
9 QH OUT


10 SI
11 A
12 B
13 C
14 D
3 E
4 F
5 G
6 H
CK1 2
CK2 15
1 S/$\overline{L}$
QH 9
$\overline{QH}$ 7

SI : SERIAL DATA IN
A-H : PARALLEL DATA IN
CK1, CK2 : CLOCK IN (↑)
S/$\overline{L}$: SHIFT/LOAD IN
QH $\overline{QH}$: 8th BIT OUT (COMPLEMENTALY)

INPUTS				CONTENTS		OUTPUT	OPERATION
S/L	CK1+CK2	SI	A----------H	QA	QB-----	QH	
0	×	×	a----------h	a	b-----	h	PARALLEL LOAD
1	↑	0	×	0	QAo---	QGo	RIGHT SHIFT
1	↑	1	×	1	QAo---	QGo	
1	↓	×	×	QAo	QBo---	QHo	NO COUNT
1	0	×	×	QAo	QBo---	QHo	
1	1	×	×	QAo	QBo---	QHo	

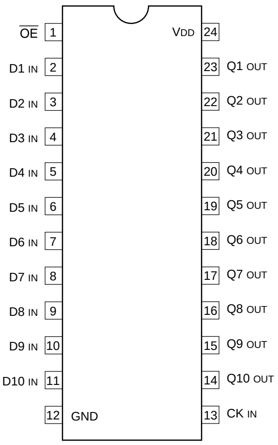
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
a-h : LEVEL OF INPUTS A-H
QAo - QHo : LEVEL OF QA-QH BEFORE THE INDICATED INPUT CONDITIONS WERE ESTABLISHED

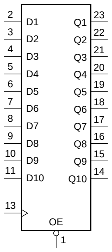

A 11
B 12
C 13
H 6
SI 10
S/$\overline{L}$ 1
D S QA R
D S QB R
D S QC R
D S QH R $\overline{QH}$
9 QH
7 $\overline{QH}$
CK1 2
CK2 15

SN74LVC821APW-E05 (TI)

C-MOS 10-BIT BUS INTERFACE FLIP-FLOPS WITH 3-STATE OUTPUTS

—TOP VIEW—


$\overline{OE}$ 1
D1 IN 2
D2 IN 3
D3 IN 4
D4 IN 5
D5 IN 6
D6 IN 7
D7 IN 8
D8 IN 9
D9 IN 10
D10 IN 11
12 GND
VDD 24
23 Q1 OUT
22 Q2 OUT
21 Q3 OUT
20 Q4 OUT
19 Q5 OUT
18 Q6 OUT
17 Q7 OUT
16 Q8 OUT
15 Q9 OUT
14 Q10 OUT
13 CK IN

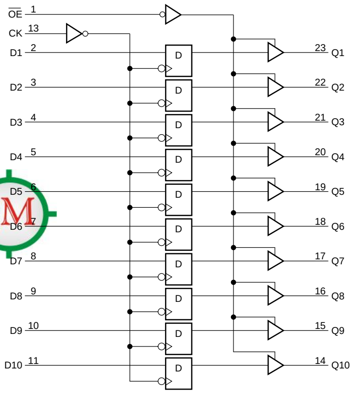

2 D1
3 D2
4 D3
5 D4
6 D5
7 D6
8 D7
9 D8
10 D9
11 D10
13
OE 1
Q1 23
Q2 22
Q3 21
Q4 20
Q5 19
Q6 18
Q7 17
Q8 16
Q9 15
Q10 14

FUNCTION TABLE (EACH FLIP-FLOP)

INPUTS			OUTPUTS
OE	CK	D	Q
0	↑	1	1
0	↑	0	0
0	0	×	Q_0
1	×	×	HI-Z

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE

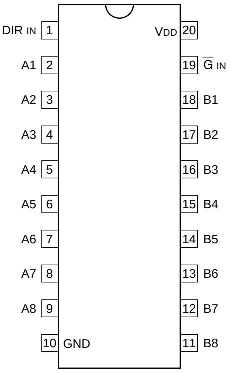
LOGIC DIAGRAM (POSITIVE LOGIC)

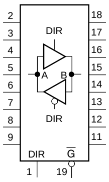

$\overline{OE}$ 1
CK 13
D1 2
D2 3
D3 4
D4 5
D5 6
D6 7
D7 8
D8 9
D9 10
D10 11
D
23 Q1
22 Q2
21 Q3
20 Q4
19 Q5
18 Q6
17 Q7
16 Q8
15 Q9
14 Q10

SN74HC245APW-E05 (TI)
SN74HCT245APW-E05 (TI)
SN74LV245APWR (TI)
TC74VHCT245AFT(EL) (TOSHIBA)

OCTAL BUS TRANSCEIVER WITH 3-STATE OUTPUTS

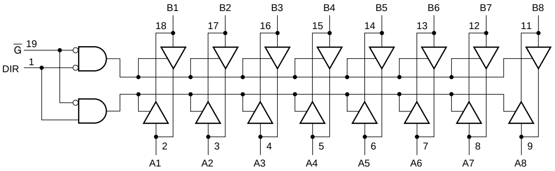
—TOP VIEW—


DIR IN 1
A1 2
A2 3
A3 4
A4 5
A5 6
A6 7
A7 8
A8 9
10 GND
VDD 20
19 $\overline{G}$ IN
18 B1
17 B2
16 B3
15 B4
14 B5
13 B6
12 B7
11 B8


2
3
4
5
6
7
8
9
18
17
16
15
14
13
12
11
DIR
A
B
DIR
DIR $\overline{G}$
1 19

$\overline{G}$	DIR	OPERATION
0	0	B to A
0	1	A to B
1	×	HI-Z

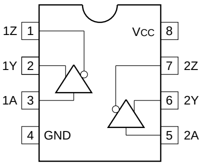
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
HI-Z : HIGH IMPEDANCE


B1 18
B2 17
B3 16
B4 15
B5 14
B6 13
B7 12
B8 11
$\overline{G}$ 19
DIR 1
2 A1
3 A2
4 A3
5 A4
6 A5
7 A6
8 A7
9 A8

SN75158PS (TI)
SN75158PS-E05

DUAL DIFFERENTIAL LINE DRIVE

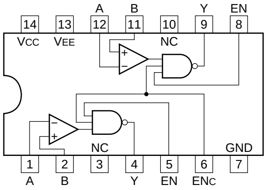
—TOP VIEW—


1Z 1
1Y 2
1A 3
4 GND
VCC 8
7 2Z
6 2Y
5 2A

SN75207BNS (TI)
SN75207BNS-E05

BIPOLAR LINE RECEIVER

—TOP VIEW—


A
B
Y
EN
14
13
12
11
10
9
8
VCC
VEE
NC
NC
GND
1
2
3
4
5
6
7
A
B
Y
EN
ENC

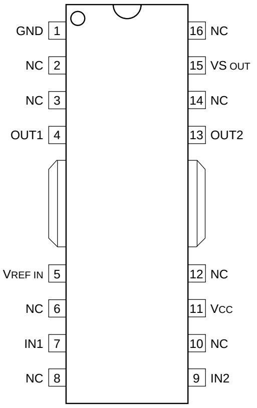
INPUTS			OUT
B – A	EN	ENC	Y
B – A ≧ 10 mV	×	0	1
	0	×	1
	1	1	0
|B – A| < 10 mV	×	0	1
	0	×	1
	1	1	∗
B – A ≦ −10 mV	×	×	1

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
∗ : INDETERMINATE

TA7291F (TOSHIBA)
TA7291F-EL

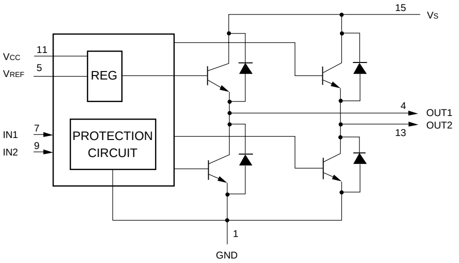
DC MOTOR FULLBRIDGE DRIVER

—TOP VIEW—


GND 1
NC 2
NC 3
OUT1 4
VREF IN 5
NC 6
IN1 7
NC 8
16 NC
15 VS OUT
14 NC
13 OUT2
12 NC
11 VCC
10 NC
9 IN2

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	HI-Z	HI-Z	STOP
1	0	1	0	CW/CCW
0	1	0	1	CCW/CW
1	1	0	0	BRAKE

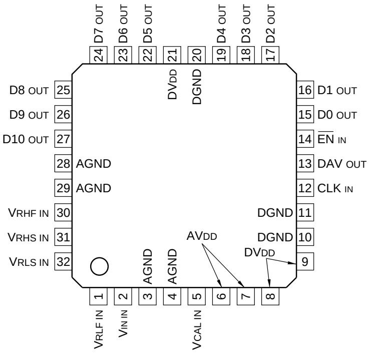
0 : LOW LEVEL
1 : HIGH LEVEL
HI-Z : HIGH IMPEDANCE

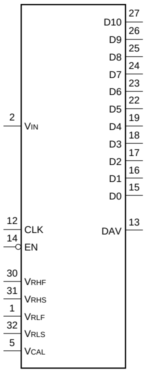

15
VS
VCC
VREF
11
5
REG
IN1
IN2
7
9
PROTECTION CIRCUIT
4
OUT1
13
OUT2
1
GND

SPT7860SCT (SIGNAL PROC)

C-MOS 10-BIT A/D CONVERTER

—TOP VIEW—


D7 OUT
D6 OUT
D5 OUT
D4 OUT
D3 OUT
D2 OUT
24
23
22
21
20
19
18
17
DVDD
DGND
D8 OUT 25
D9 OUT 26
D10 OUT 27
28 AGND
29 AGND
VRHF IN 30
VRHS IN 31
VRLS IN 32
16 D1 OUT
15 D0 OUT
14 EN IN
13 DAV OUT
12 CLK IN
DGND 11
DGND 10
DVDD 9
AVDD
AGND
AGND
1
2
3
4
5
6
7
8
VRLF IN
VIN IN
VCAL IN


2
VIN
27 D10
26 D9
25 D8
24 D7
23 D6
22 D5
19 D4
18 D3
17 D2
16 D1
15 D0
13 DAV
12 CLK
14 EN
30 VRHF
31 VRHS
1 VRLF
32 VRLS
5 VCAL

INPUT

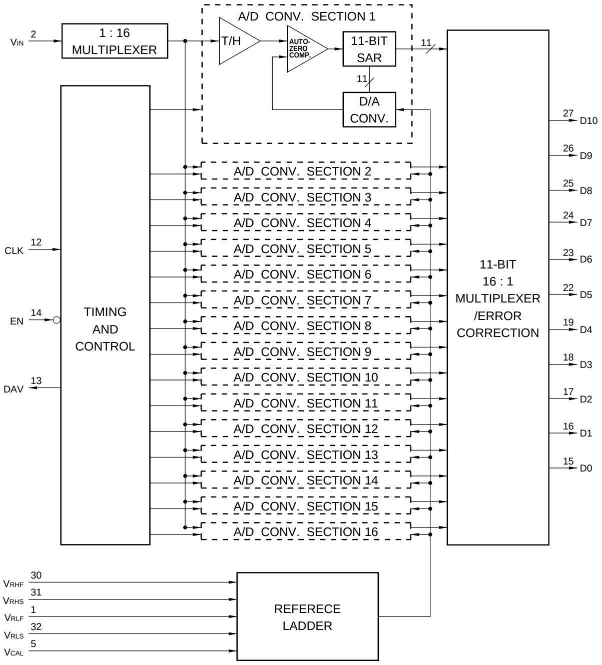
CLK : CLOCK $f_{CLK} = f_S$
$\overline{EN}$: OUTPUT ENABLE
V_{CAL} : CALIBRATION REFERENCE
V_{IN} : ANALOG VOLTAGE
V_{RHF} : REFERENCE HIGH FORCE
V_{RHS} : REFERENCE HIGH SENCE
V_{RLF} : REFERENCE LOW FORCE
V_{RLS} : REFERENCE LOW SENCE

OUTPUT

D0 - D9 : DIGITAL DATA
D10 : OVERRANGE
DAV : DATA VALID

OTHER

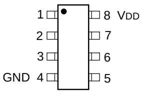
AGND : ANALOG GROUND
AV_{DD} : ANALOG POWER SUPPLY
DGND : DIGITAL GROUND
DV_{DD} : DIGITAL POWER SUPPLY

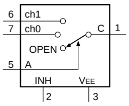

VIN 2
1 : 16 MULTIPLEXER
A/D CONV. SECTION 1
T/H
AUTO-ZERO COMP.
11-BIT SAR
11
11
D/A CONV.
A/D CONV. SECTION 2
A/D CONV. SECTION 3
A/D CONV. SECTION 4
A/D CONV. SECTION 5
A/D CONV. SECTION 6
A/D CONV. SECTION 7
A/D CONV. SECTION 8
A/D CONV. SECTION 9
A/D CONV. SECTION 10
A/D CONV. SECTION 11
A/D CONV. SECTION 12
A/D CONV. SECTION 13
A/D CONV. SECTION 14
A/D CONV. SECTION 15
A/D CONV. SECTION 16
CLK 12
EN 14
DAV 13
TIMING AND CONTROL
11-BIT 16 : 1 MULTIPLEXER /ERROR CORRECTION
27 D10
26 D9
25 D8
24 D7
23 D6
22 D5
19 D4
18 D3
17 D2
16 D1
15 D0
VRHF 30
VRHS 31
VRLF 1
VRLS 32
VCAL 5
REFEFECE LADDER

TC4W53FU (TOSHIBA)
TC4W53FU(TE12R)

C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER

—TOP VIEW—


1
2
3
GND 4
8 VDD
7
6
5


6 ch1
7 ch0
C 1
OPEN
5 A
INH
VEE
2
3

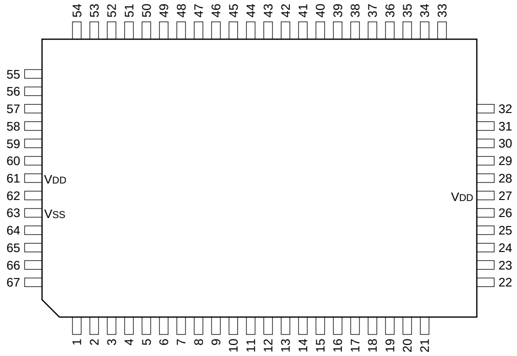
CONT. INPUT		ON CHANNEL
INH	A	
0	0	ch0
0	1	ch1
1	×	OPEN

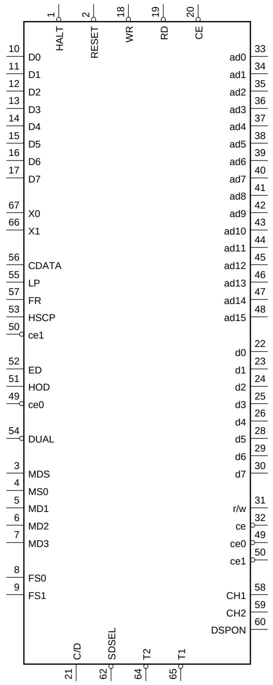
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

T6963C (TOSHIBA)

C-MOS DOT MATRIX LCD CONTROLLER

—TOP VIEW—


54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
55 56 57 58 59 60 61 62 63 64 65 66 67
VDD
VSS
32 31 30 29 28 27 26 25 24 23 22
VDD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21


1 HALT
2 RESET
18 WR
19 RD
20 CE
10 D0
11 D1
12 D2
13 D3
14 D4
15 D5
16 D6
17 D7
67 X0
66 X1
56 CDATA
55 LP
57 FR
53 HSCP
50 ce1
52 ED
51 HOD
49 ce0
54 DUAL
3 MDS
4 MS0
5 MD1
6 MD2
7 MD3
8 FS0
9 FS1
ad0 33
ad1 34
ad2 35
ad3 36
ad4 37
ad5 38
ad6 39
ad7 40
ad8 41
ad9 42
ad10 43
ad11 44
ad12 45
ad13 46
ad14 47
ad15 48
d0 22
d1 23
d2 24
d3 25
d4 26
d5 28
d6 29
d7 30
r/w 31
ce 32
ce0 49
ce1 50
CH1 58
CH2 59
DSPON 60
21 C/D
62 SDSEL
64 T2
65 T1

INPUT

C/D ; COMMAND/DATA SELECT
CE ; CHIP ENABLE
DUAL ; DUAL LCD SELECT
FS0, FS1 ; FONT SELECT
HALT ; HALT
MDS ; DISPLAY COLUMN SELECT
MD0-3 ; DISPLAY COLUMN SELECT
RD ; READ
RESET ; RESET
SDSEL ; INPUT DATA SELECT (NORMAL/DUAL)
T1, T2 ; TEST1, 2
WR ; WRITE
X1 ; CRYSTAL OSCILLATOR

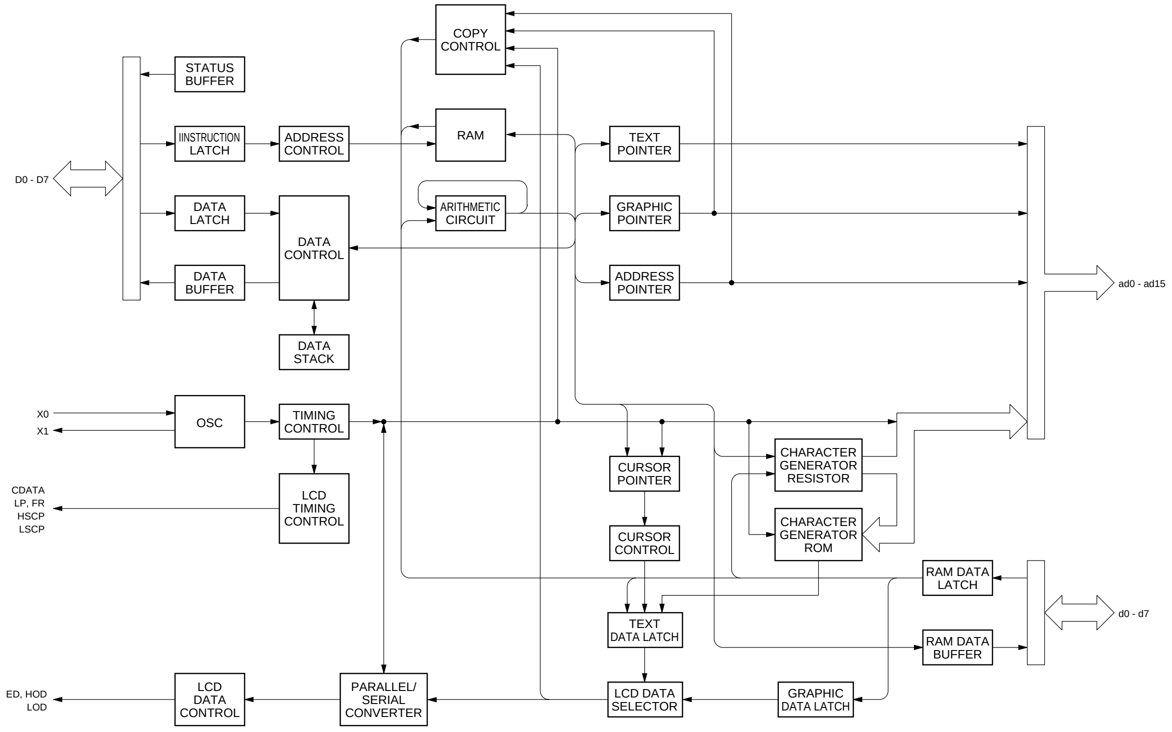
OUTPUT

ad0 - ad15 ; ADDRESS BUS
CDATA ; SYNC
ce, ce0, ce1 ; MEMORY CHIP ENABLE
CH1, CH2 ; CHECK1, 2
DSPON ; EXTERNAL DC/DC CONVERTER CONTROL
ED ; SERIAL DATA FOR LCD
FR ; FRAME SIGNAL
HOD ; SERIAL DATA FOR UPPER LCD
HSCP ; SHIFT CLOCK PULSE
LP ; LATCH PULSE/CLOCK PULSE
r/w ; MEMORY READ/WRITE
X0 ; CRYSTAL OSCILLATOR

INPUT/OUTPUT

D0 - D7 ; DATA BUS
d0 - d7 ; MEMORY DATA BUS

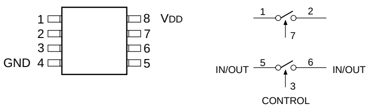
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	$\overline{\text{HALT}}$	18	I	$\overline{\text{WR}}$	35	O	ad2	52	O	ED
2	I	$\overline{\text{RESET}}$	19	I	$\overline{\text{RD}}$	36	O	ad3	53	O	HSCP
3	I	MDS	20	I	$\overline{\text{CE}}$	37	O	ad4	54	I	$\overline{\text{DUAL}}$
4	I	MD0	21	I	C/D	38	O	ad5	55	O	LP
5	I	MD1	22	I/O	d0	39	O	ad6	56	O	CDATA
6	I	MD2	23	I/O	d1	40	O	ad7	57	O	FR
7	I	MD3	24	I/O	d2	41	O	ad8	58	O	CH1
8	I	FS0	25	I/O	d3	42	O	ad9	59	O	CH2
9	I	FS1	26	I/O	d4	43	O	ad10	60	O	DSPON
10	I/O	D0	27	—	VDD	44	O	ad11	61	—	VDD
11	I/O	D1	28	I/O	d5	45	O	ad12	62	I	$\overline{\text{SDSEL}}$
12	I/O	D2	29	I/O	d6	46	O	ad13	63	—	Vss
13	I/O	D3	30	I/O	d7	47	O	ad14	64	I	$\overline{\text{T2}}$
14	I/O	D4	31	O	r/w	48	O	ad15	65	I	$\overline{\text{T1}}$
15	I/O	D5	32	O	ce	49	O	ce0	66	I	X1
16	I/O	D6	33	O	ad0	50	O	ce1	67	O	X0
17	I/O	D7	34	O	ad1	51	O	HOD	—	—	—


COPY CONTROL
STATUS BUFFER
RAM
IINSTRUCTION LATCH
ADDRESS CONTROL
TEXT POINTER
D0 - D7
ARITHMETIC CIRCUIT
DATA LATCH
GRAPHIC POINTER
DATA CONTROL
DATA BUFFER
ADDRESS POINTER
ad0 - ad15
DATA STACK
X0
X1
OSC
TIMING CONTROL
CURSOR POINTER
CHARACTER GENERATOR RESISTOR
CDATA
LP, FR
HSCP
LSCP
LCD TIMING CONTROL
CURSOR CONTROL
CHARACTER GENERATOR ROM
RAM DATA LATCH
TEXT DATA LATCH
d0 - d7
RAM DATA BUFFER
ED, HOD
LOD
LCD DATA CONTROL
PARALLEL/ SERIAL CONVERTER
LCD DATA SELECTOR
GRAPHIC DATA LATCH

TC4W66FU(TE12R) (TOSHIBA)

C-MOS DUAL BILATERAL SWITCH

—TOP VIEW—


1
2
3
GND 4
8 VDD
7
6
5
1
2
7
IN/OUT
5
6
IN/OUT
3
CONTROL

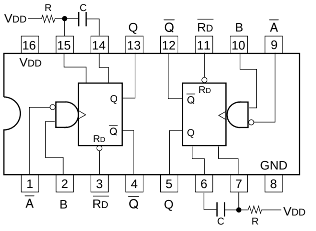
CONTROL	SWITCH
0	OFF
1	ON

0 : LOW LEVEL
1 : HIGH LEVEL

TC74HC123AF (TOSHIBA)
TC74HC123AF(EL)
TC74VHC123AFT(EL) (TOSHIBA)

C-MOS DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATORS

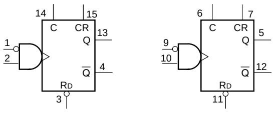
—TOP VIEW—


R
C
VDD
Q
Q̄
RD
B
Ā
16
15
14
13
12
11
10
9
VDD
GND
1
2
3
4
5
6
7
8
Ā
B
RD
Q̄
Q
C
R
VDD

INPUTS			OUTPUTS	
RD	A	B	Q	Q̄
0	×	×	0	1
1	1	×	0	1
1	×	0	0	1
1	0	↑	⊓	⊔
1	↓	1	⊓	⊔
↑	0	1	⊓	⊔

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

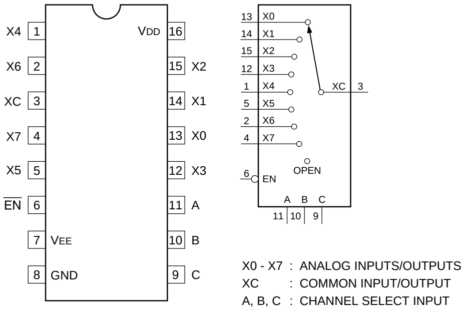
OUTPUT PULSE WIDTH = 0.46 CR


14
15
C
CR
13
Q
1
2
4
Q̄
RD
3
6
7
C
CR
5
Q
9
10
12
Q̄
RD
11

TC74HC4051AF(EL) (TOSHIBA)

C-MOS 8-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER

—TOP VIEW—


X4 1
X6 2
XC 3
X7 4
X5 5
EN 6
7 VEE
8 GND
VDD 16
15 X2
14 X1
13 X0
12 X3
11 A
10 B
9 C
13 X0
14 X1
15 X2
12 X3
1 X4
5 X5
2 X6
4 X7
XC 3
6 EN
OPEN
A B C
11 10 9

X0 - X7 : ANALOG INPUTS/OUTPUTS
XC : COMMON INPUT/OUTPUT
A, B, C : CHANNEL SELECT INPUT
EN : ENABLE INPUT

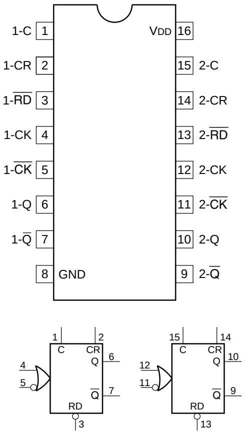
CONTROL INPUTS				SELECTED CHANNEL
EN	SELECT			
	C	B	A	
0	0	0	0	X0
0	0	0	1	X1
0	0	1	0	X2
0	0	1	1	X3
0	1	0	0	X4
0	1	0	1	X5
0	1	1	0	X6
0	1	1	1	X7
1	×	×	×	OPEN

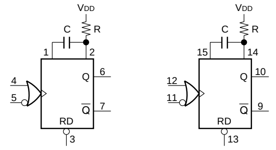
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

TC74HC4538AFT(EL) (TOSHIBA)

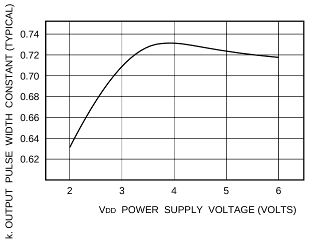
C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE MONOSTABLE MULTIVIBRATOR

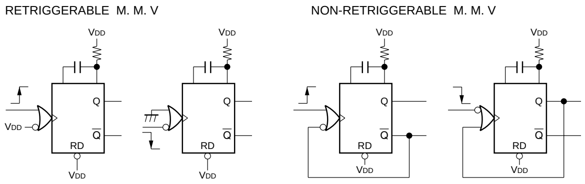
—TOP VIEW—


1-C 1
1-CR 2
1-RD 3
1-CK 4
1-CK̄ 5
1-Q 6
1-Q̄ 7
8 GND
VDD 16
15 2-C
14 2-CR
13 2-RD
12 2-CK
11 2-CK̄
10 2-Q
9 2-Q̄
1
2
C
CR
Q
6
4
5
Q̄
7
RD
3
15
14
C
CR
Q
10
12
11
Q̄
9
RD
13


VDD
C
R
1
2
4
5
Q
6
Q̄
7
RD
3
VDD
C
R
15
14
12
11
Q
10
Q̄
9
RD
13

OUTPUT PULSE WIDTH = k • C • R

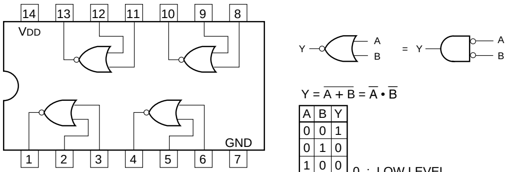



RETRIGGERABLE M. M. V
NON-RETRIGGERABLE M. M. V
VDD
Q
Q̄
RD
VDD

TC74VHC02FT(EL) (TOSHIBA)

C-MOS QUAD 2-INPUT NOR GATES

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
Y
A
B
=
Y
A
B

$Y = \overline{A+B} = \overline{A} \cdot \overline{B}$

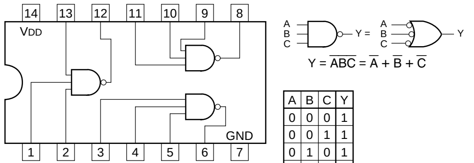
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

0 : LOW LEVEL
1 : HIGH LEVEL

TC74VHC10FT(EL) (TOSHIBA)

C-MOS 3-INPUT NAND GATE

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
B
C
Y =
A
B
C
Y

$Y = \overline{ABC} = \overline{A} + \overline{B} + \overline{C}$

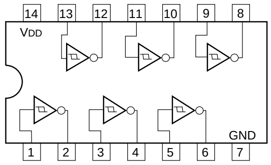
A	B	C	Y
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	0

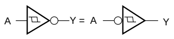
0 : LOW LEVEL
1 : HIGH LEVEL

TC74VHC14FT(EL) (TOSHIBA)

C-MOS HEX SCHMITT TRIGGER INVERTERS

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{A}$

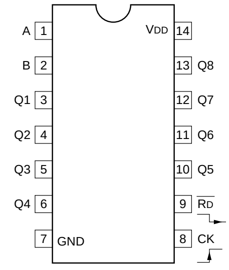
A	Y
0	1
1	0

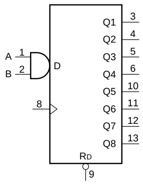
0 : LOW LEVEL
1 : HIGH LEVEL

TC74VHC164FT(EL) (TOSHIBA)

C-MOS 8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REGISTER

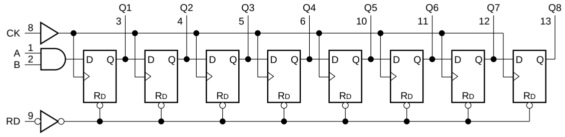
—TOP VIEW—


A 1
B 2
Q1 3
Q2 4
Q3 5
Q4 6
7 GND
VDD 14
13 Q8
12 Q7
11 Q6
10 Q5
9 RD
8 CK


A 1
B 2
D
8
Q1 3
Q2 4
Q3 5
Q4 6
Q5 10
Q6 11
Q7 12
Q8 13
RD
9

INPUTS				OUTPUTS			
RD	CK	A	B	Q1	Q2	---	Q8
0	×	×	×	0	0	0	0
1	0	×	×	Q1o	Q2o	---	Q8o
1	↑	1	1	1	Q1n	---	Q7n
1	↑	0	×	0	Q1n	---	Q7n
1	↑	×	0	0	Q1n	---	Q7n

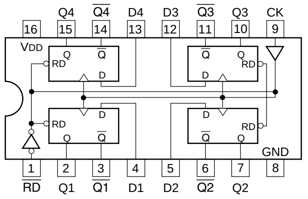
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

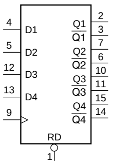

CK 8
A 1
B 2
RD 9
Q1 3
Q2 4
Q3 5
Q4 6
Q5 10
Q6 11
Q7 12
Q8 13
D Q
RD

TC74VHC175FT(EL) (TOSHIBA)

C-MOS QUAD D-TYPE FLIP-FLOPS WITH RESET

—TOP VIEW—


Q4
Q̄4
D4
D3
Q̄3
Q3
CK
16
15
14
13
12
11
10
9
VDD
GND
1
2
3
4
5
6
7
8
RD
Q1
Q̄1
D1
D2
Q̄2
Q2
Q
Q̄
D
RD


4 D1
5 D2
12 D3
13 D4
9
Q1 2
Q̄1 3
Q2 7
Q̄2 6
Q3 10
Q̄3 11
Q4 15
Q̄4 14
RD
1

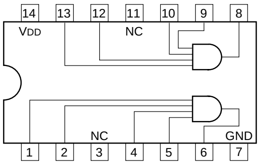
RD	CK	D	Q	$\overline{Q}$
0	×	×	0	1
1	↑	1	1	0
1	↑	0	0	1
1	0	×	Q_0	$\overline{Q}_0$

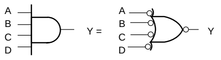
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE
Q_0 : NO CHANGE
$\overline{Q}_0$: NO CHANGE

TC74VHC21FT(EL) (TOSHIBA)

C-MOS DUAL 4-INPUT POSITIVE AND GATE

—TOP VIEW—


14
13
12
11
10
9
8
VDD
NC
NC
GND
1
2
3
4
5
6
7


A
B
C
D
Y =
A
B
C
D
Y

$Y = A \cdot B \cdot C \cdot D = \overline{\overline{A} + \overline{B} + \overline{C} + \overline{D}}$

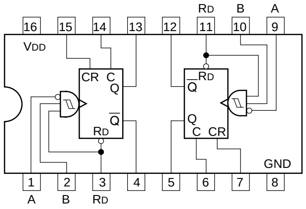
A	B	C	D	Y
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	0
⋮	⋮	⋮	⋮	⋮
1	1	0	1	0
1	1	1	0	0
1	1	1	1	1

0 : LOW LEVEL
1 : HIGH LEVEL

TC74VHC221AFT(EL) (TOSHIBA)

C-MOS MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT

—TOP VIEW—


RD
B
A
16
15
14
13
12
11
10
9
VDD
CR
C
Q
Q̄
RD
GND
1
2
3
4
5
6
7
8
A
B
RD

INPUTS			OUTPUTS	
RD	A	B	Q	$\overline{Q}$
0	×	×	0	1
×	1	×	0	1
×	×	0	0	1
1	0	↑	⊓	⊔
1	↓	1	⊓	⊔
↑	0	1	⊓	⊔

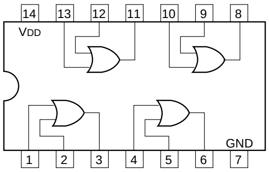
0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

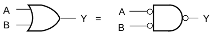
OUTPUT PULSE WIDTH = 0.7CR

TC74VHC32FT(EL) (TOSHIBA)

C-MOS QUAD 2-INPUT OR GATES

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = A + B = \overline{\overline{A} \cdot \overline{B}}$

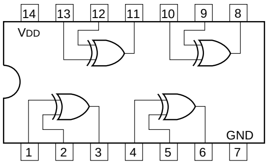
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

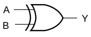
0 : LOW LEVEL
1 : HIGH LEVEL

TC74VHC86FT(EL) (TOSHIBA)

C-MOS QUAD EXCLUSIVE OR GATES

—TOP VIEW—


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{A} \cdot B + A \cdot \overline{B}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

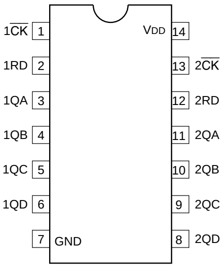
0 : LOW LEVEL
1 : HIGH LEVEL

http://getMANUAL.com

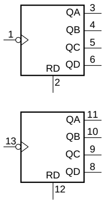
TC74VHC393FT(EL) (TOSHIBA)

C-MOS DUAL 4-BIT BINARY COUNTER

—TOP VIEW—



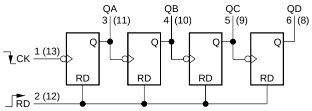
1CK 1
1RD 2
1QA 3
1QB 4
1QC 5
1QD 6
7 GND
VDD 14
13 2CK
12 2RD
11 2QA
10 2QB
9 2QC
8 2QD



1
QA 3
QB 4
QC 5
QD 6
RD
2
13
QA 11
QB 10
QC 9
QD 8
RD
12

COUNT SEQUENCE

COUNT	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1



QA
3 (11)
QB
4 (10)
QC
5 (9)
QD
6 (8)
CK
1 (13)
RD
2 (12)
Q
RD

RESET/COUNT FUNCTION

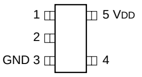
RD	QD	QC	QB	QA
1	0	0	0	0
0	COUNT			

0 : LOW LEVEL
1 : HIGH LEVEL

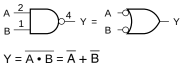
TC7S00FU(TE85R) (TOSHIBA)

C-MOS 2-INPUT NAND GATE

—TOP VIEW—



1
2
GND 3
5 VDD
4



$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

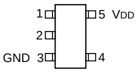
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0 : LOW LEVEL
1 : HIGH LEVEL

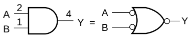
TC7S08F (TOSHIBA)
TC7S08F(TE85R)
TC7S08FU(TE85R) (TOSHIBA)

C-MOS 2-INPUT AND GATE

—TOP VIEW—



1
2
GND 3
5 VDD
4



$Y = A \cdot B = \overline{\overline{A} + \overline{B}}$

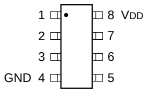
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0 : LOW LEVEL
1 : HIGH LEVEL

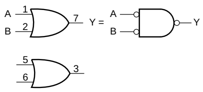
TC7W32FU (TOSHIBA)
TC7W32FU(TE12R)

C-MOS DUAL 2-INPUT OR GATE

—TOP VIEW—



1
2
3
GND 4
8 VDD
7
6
5



A 1
B 2
7
Y =
A
B
Y
5
6
3

$Y = A + B = \overline{\overline{A} \cdot \overline{B}}$

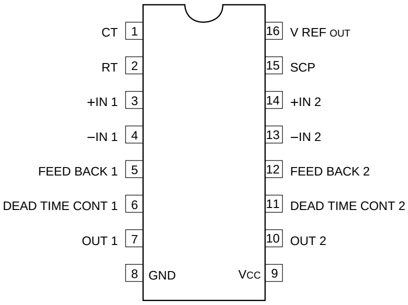
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0 : LOW LEVEL
1 : HIGH LEVEL

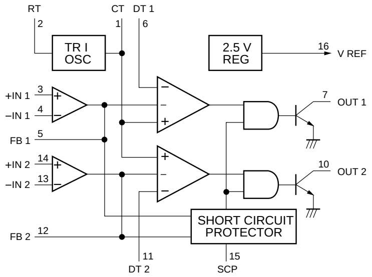
TL1451ACPW(R) (TI)

DUAL PWM POWER CONTROLLER

—TOP VIEW—



CT 1
RT 2
+IN 1 3
−IN 1 4
FEED BACK 1 5
DEAD TIME CONT 1 6
OUT 1 7
8 GND
16 V REF OUT
15 SCP
14 +IN 2
13 −IN 2
12 FEED BACK 2
11 DEAD TIME CONT 2
10 OUT 2
VCC 9

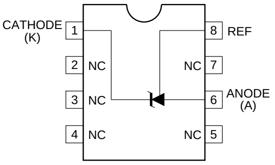


RT
2
CT
1
DT 1
6
TR I OSC
2.5 V REG
16
V REF
+IN 1 3
−IN 1 4
FB 1 5
+IN 2 14
−IN 2 13
FB 2 12
7
OUT 1
10
OUT 2
SHORT CIRCUIT PROTECTOR
11
DT 2
15
SCP

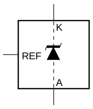
TL431CPS (TI)
TL431CPS-E05

ADJUSTABLE PRECISION SHUNT REGULATOR

—TOP VIEW—



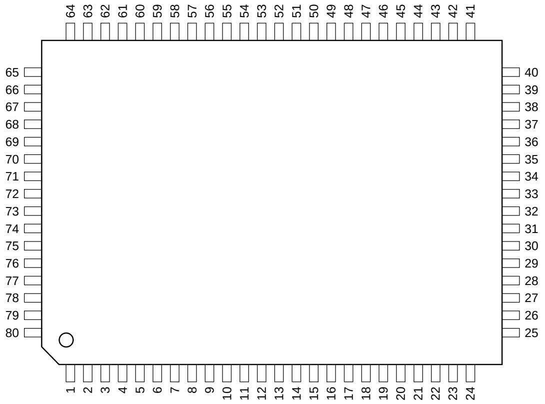
CATHODE (K) 1
2 NC
3 NC
4 NC
8 REF
NC 7
6 ANODE (A)
NC 5



TC9240F (TOSHIBA)

LCD DRIVER FOR AUDIO

—TOP VIEW—


64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	SEG0	21	O	SEG20	41	O	SEG40	61	O	SEG60
2	O	SEG1	22	O	SEG21	42	O	SEG41	62	O	SEG61
3	O	SEG2	23	O	SEG22	43	O	SEG42	63	O	COM-OUT
4	O	SEG3	24	O	SEG23	44	O	SEG43	64	I/O	$\overline{\text{SYNC}}$
5	O	SEG4	25	O	SEG24	45	O	SEG44	65	I	CE
6	O	SEG5	26	O	SEG25	46	O	SEG45	66	I	DATA
7	O	SEG6	27	O	SEG26	47	O	SEG46	67	I	CK
8	O	SEG7	28	O	SEG27	48	O	SEG47	68	I	OSC
9	O	SEG8	29	O	SEG28	49	O	SEG48	69	I	SEL
10	O	SEG9	30	O	SEG29	50	O	SEG49	70	I	2/3
11	O	SEG10	31	O	SEG30	51	O	SEG50	71	I	$\overline{\text{LT}}$
12	O	SEG11	32	O	SEG31	52	O	SEG51	72	I	$\overline{\text{BL}}$
13	O	SEG12	33	O	SEG32	53	O	SEG52	73	—	Vcc
14	O	SEG13	34	O	SEG33	54	O	SEG53	74	I	VLC1
15	O	SEG14	35	O	SEG34	55	O	SEG54	75	I	VLC2
16	O	SEG15	36	O	SEG35	56	O	SEG55	76	I	VLC3
17	O	SEG16	37	O	SEG36	57	O	SEG56	77	—	GND
18	O	SEG17	38	O	SEG37	58	O	SEG57	78	O	COM1
19	O	SEG18	39	O	SEG38	59	O	SEG58	79	O	COM2
20	O	SEG19	40	O	SEG39	60	O	SEG59	80	O	COM3

INPUTS

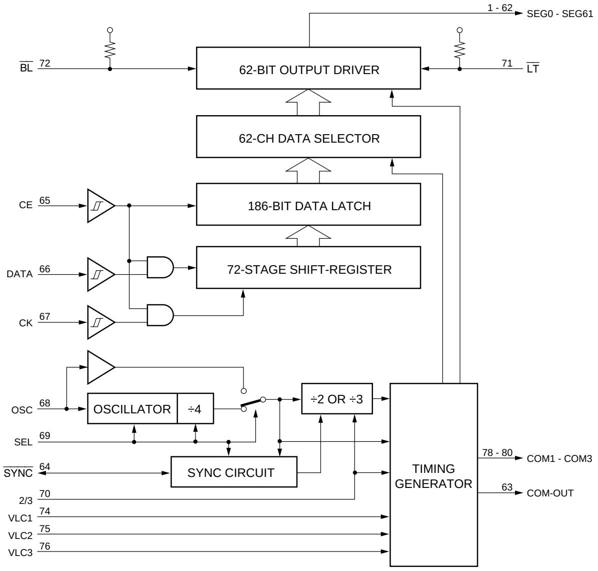
2/3 : DUTY SELECT
$\overline{\text{BL}}$: BLANKING
CE : CHIP SELECT
CK : CLOCK
DATA : DATA
$\overline{\text{LT}}$: LAMP TEST
OSC : OSCILLATOR
SEL : MASTER/SLAVE SELECT
VLC1 - VLC3 : BIAS VOLTAGE

OUTPUTS

COM1 - COM3 : COMMON
COM-OUT : COMMON CLOCK
SEG0 -SEG61 : SEGMENT

INPUTS/OUTPUTS

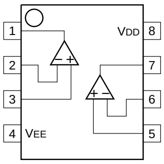
$\overline{\text{SYNC}}$: SYNC


1 - 62
SEG0 - SEG61
BL 72
62-BIT OUTPUT DRIVER
71 LT
62-CH DATA SELECTOR
CE 65
186-BIT DATA LATCH
DATA 66
72-STAGE SHIFT-REGISTER
CK 67
OSC 68
OSCILLATOR
÷4
÷2 OR ÷3
SEL 69
SYNC 64
SYNC CIRCUIT
2/3 70
VLC1 74
VLC2 75
VLC3 76
TIMING GENERATOR
78 - 80
COM1 - COM3
63
COM-OUT

TLC272CPW-E05 (TI)
TLC27M2CPW-E05 (TI)
TLC27M2CPWR

C-MOS DUAL OPERATIONAL AMPLIFIERS (SINGLE-SUPPLY TYPE)

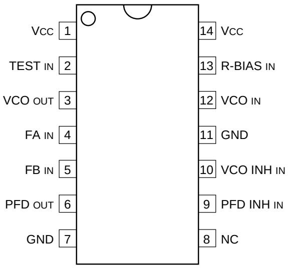
—TOP VIEW—


1
2
3
4 VEE
VDD 8
7
6
5

TLC2933IPWR (TI)

VCO AND PHASE FREQUENCY DETECTOR

—TOP VIEW—


VCC 1
TEST IN 2
VCO OUT 3
FA IN 4
FB IN 5
PFD OUT 6
GND 7
14 VCC
13 R-BIAS IN
12 VCO IN
11 GND
10 VCO INH IN
9 PFD INH IN
8 NC

INPUTS

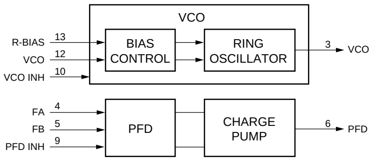
FA : REFERENCE FREQUENCY
FB : INPUT FREQUENCY FROM OUTSIDE COUNTER
PFD INH : PFD INHIBIT
R-BIAS : BIAS RESISTOR
TEST : TEST
VCO : VOLTAGE CONTROLLED OSCILLATOR
VCO INH : VCO INHIBIT

OUTPUTS

PFD : PHASE FREQUENCY DETECTOR
VCO : VOLTAGE CONTROLLED OSCILLATOR

OTHER

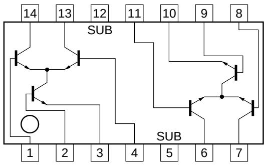
NC : NO CONNECTION


VCO
R-BIAS 13
VCO 12
VCO INH 10
BIAS CONTROL
RING OSCILLATOR
3 VCO
FA 4
FB 5
PFD INH 9
PFD
CHARGE PUMP
6 PFD

UPA102G-E1 (NEC)

HIGH FREQUENCY PNP TRANSISTOR ARRAY

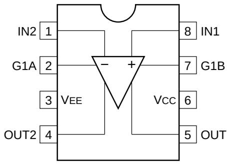
—TOP VIEW—


14 13 12 11 10 9 8
SUB
SUB
1 2 3 4 5 6 7

UPC1663G (NEC)
UPC1663G-E2

WIDEBAND VIDEO AMPLIFIER

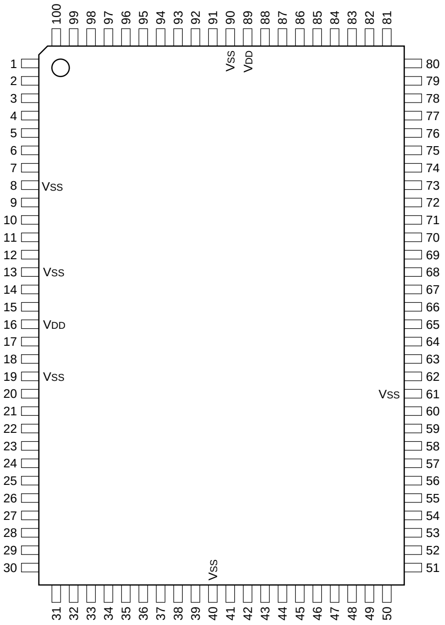
—TOP VIEW—


IN2 1
G1A 2
3 VEE
OUT2 4
8 IN1
7 G1B
VCC 6
5 OUT1
−
+

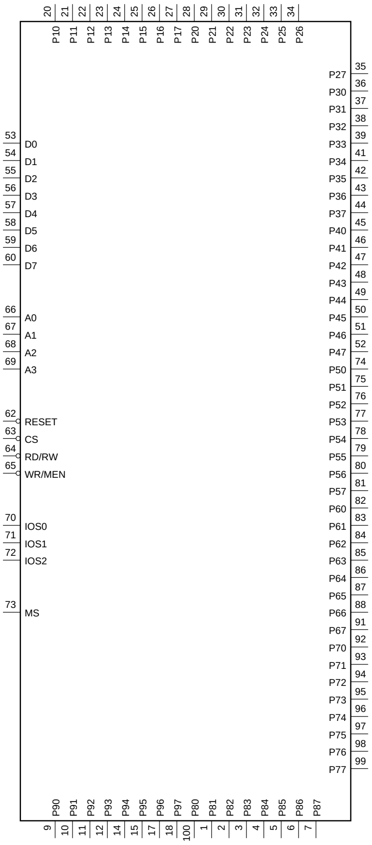
TE7751 (TKE)

C-MOS SUPER I/O EXPANDER (8-BIT × 9 CH)

—TOP VIEW—


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
VSS
VSS
VDD
VSS
VSS
VSS
VSS
VDD

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I/O	P81	26	I/O	P16	51	I/O	P46	76	I/O	P52
2	I/O	P82	27	I/O	P17	52	I/O	P47	77	I/O	P53
3	I/O	P83	28	I/O	P20	53	I/O	D0	78	I/O	P54
4	I/O	P84	29	I/O	P21	54	I/O	D1	79	I/O	P55
5	I/O	P85	30	I/O	P22	55	I/O	D2	80	I/O	P56
6	I/O	P86	31	I/O	P23	56	I/O	D3	81	I/O	P57
7	I/O	P87	32	I/O	P24	57	I/O	D4	82	I/O	P60
8	—	VSS	33	I/O	P25	58	I/O	D5	83	I/O	P61
9	I/O	P90	34	I/O	P26	59	I/O	D6	84	I/O	P62
10	I/O	P91	35	I/O	P27	60	I/O	D7	85	I/O	P63
11	I/O	P92	36	I/O	P30	61	—	VSS	86	I/O	P64
12	I/O	P93	37	I/O	P31	62	I	RESET	87	I/O	P65
13	—	VSS	38	I/O	P32	63	I	CS	88	I/O	P66
14	I/O	P94	39	I/O	P33	64	I	RD/RW	89	—	VDD
15	I/O	P95	40	—	VSS	65	I	WR/MEN	90	—	VSS
16	—	VDD	41	I/O	P34	66	I	A0	91	I/O	P67
17	I/O	P96	42	I/O	P35	67	I	A1	92	I/O	P70
18	I/O	P97	43	I/O	P36	68	I	A2	93	I/O	P71
19	—	VSS	44	I/O	P37	69	I	A3	94	I/O	P72
20	I/O	P10	45	I/O	P40	70	I	IOS0	95	I/O	P73
21	I/O	P11	46	I/O	P41	71	I	IOS1	96	I/O	P74
22	I/O	P12	47	I/O	P42	72	I	IOS2	97	I/O	P75
23	I/O	P13	48	I/O	P43	73	I	MS	98	I/O	P76
24	I/O	P14	49	I/O	P44	74	I/O	P50	99	I/O	P77
25	I/O	P15	50	I/O	P45	75	I/O	P51	100	I/O	P80

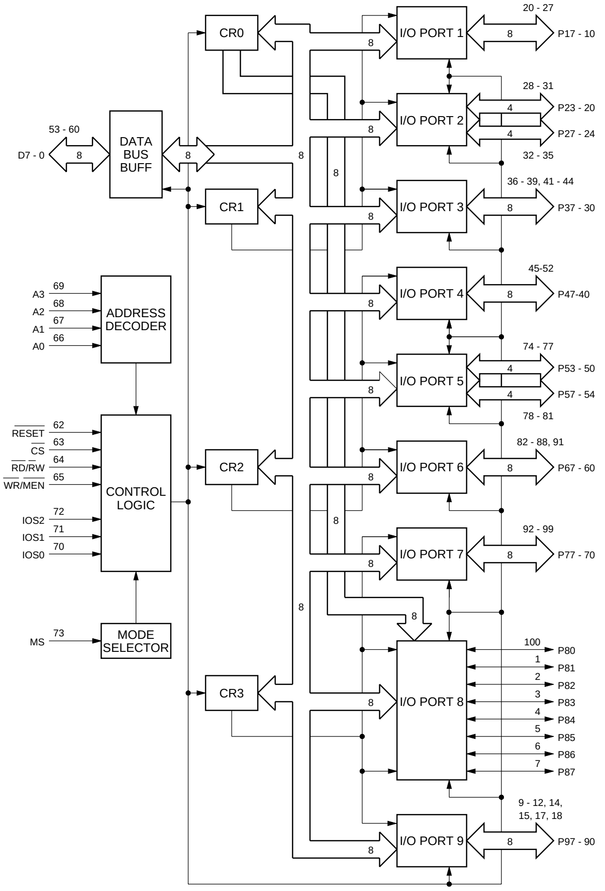

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
P10 P11 P12 P13 P14 P15 P16 P17 P20 P21 P22 P23 P24 P25 P26
53 D0
54 D1
55 D2
56 D3
57 D4
58 D5
59 D6
60 D7
66 A0
67 A1
68 A2
69 A3
62 RESET
63 CS
64 RD/RW
65 WR/MEN
70 IOS0
71 IOS1
72 IOS2
73 MS
P27 35
P30 36
P31 37
P32 38
P33 39
P34 41
P35 42
P36 43
P37 44
P40 45
P41 46
P42 47
P43 48
P44 49
P45 50
P46 51
P47 52
P50 74
P51 75
P52 76
P53 77
P54 78
P55 79
P56 80
P57 81
P60 82
P61 83
P62 84
P63 85
P64 86
P65 87
P66 88
P67 91
P70 92
P71 93
P72 94
P73 95
P74 96
P75 97
P76 98
P77 99
P90 P91 P92 P93 P94 P95 P96 P97 P80 P81 P82 P83 P84 P85 P86 P87
9 10 11 12 14 15 17 18 100 1 2 3 4 5 6 7

INPUT

A0 - A3 ; ADDRESS INPUT
CS ; CHIP SELECT
IOS0 - 2 ; I/O SELECT
MS ; MODE SELECT
RD/RW ; READ/WRITE
RESET ; RESET
WR/MEN ; WRITE/MOTOROLA ENABLE

INPUT/OUTPUT

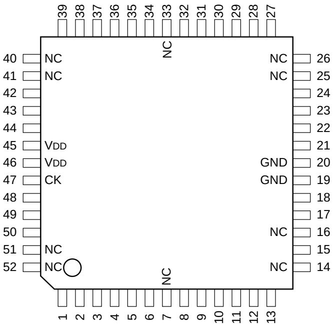
D0 - 7 ; DATA BUS
P10 - 17 ; I/O PORT 1
P20 - 27 ; I/O PORT 2
P30 - 37 ; I/O PORT 3
P40 - 47 ; I/O PORT 4
P50 - 57 ; I/O PORT 5
P60 - 67 ; I/O PORT 6
P70 - 77 ; I/O PORT 7
P80 - 87 ; I/O PORT 8
P90 - 97 ; I/O PORT 9


CR0
CR1
CR2
CR3
DATA BUS BUFF
53 - 60
D7 - 0
8
ADDRESS DECODER
A3 69
A2 68
A1 67
A0 66
CONTROL LOGIC
RESET 62
CS 63
RD/RW 64
WR/MEN 65
IOS2 72
IOS1 71
IOS0 70
MODE SELECTOR
MS 73
I/O PORT 1
20 - 27
P17 - 10
I/O PORT 2
28 - 31
P23 - 20
P27 - 24
32 - 35
I/O PORT 3
36 - 39, 41 - 44
P37 - 30
I/O PORT 4
45-52
P47-40
I/O PORT 5
74 - 77
P53 - 50
P57 - 54
78 - 81
I/O PORT 6
82 - 88, 91
P67 - 60
I/O PORT 7
92 - 99
P77 - 70
I/O PORT 8
100 P80
1 P81
2 P82
3 P83
4 P84
5 P85
6 P86
7 P87
I/O PORT 9
9 - 12, 14, 15, 17, 18
P97 - 90
8
4

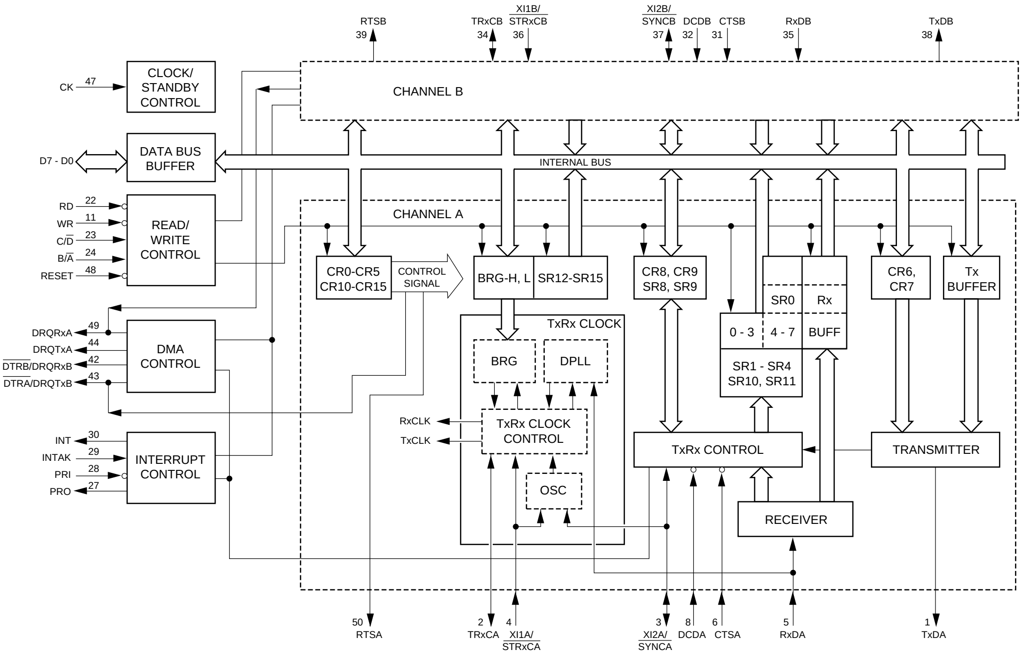
UPD72001GC-11-3B6 (NEC)

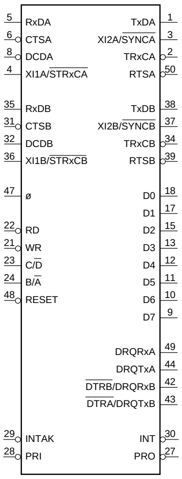
C-MOS ADVANCED MULTI-PROTOCOL SERIAL CONTROLLER

—TOP VIEW—


NC
NC
NC
VDD
VDD
CK
NC
NC
NC
NC
GND
GND
NC
NC
NC

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	TxDA	19	—	GND	37	I/O	X12B/$\overline{\text{SYNCB}}$
2	I/O	$\overline{\text{TRxCA}}$	20	—	GND	38	O	TxDB
3	I/O	XI2A/$\overline{\text{SYNCA}}$	21	I	$\overline{\text{WR}}$	39	O	$\overline{\text{RTSB}}$
4	I	XI1A/$\overline{\text{STRxCA}}$	22	I	$\overline{\text{RD}}$	40	—	NC
5	I	RxDA	23	I	C/$\overline{\text{D}}$	41	—	NC
6	I	$\overline{\text{CTSA}}$	24	I	B/$\overline{\text{A}}$	42	O	$\overline{\text{DTRB}}$/DRQRxB
7	—	NC(OPEN)	25	—	NC	43	O	$\overline{\text{DTRA}}$/DRQTxB
8	I	$\overline{\text{DCDA}}$	26	—	NC	44	O	DRQTxA
9	I/O	D7	27	O	$\overline{\text{PRO}}$	45	—	VDD
10	I/O	D6	28	I	$\overline{\text{PRI}}$	46	—	VDD
11	I/O	D5	29	I	$\overline{\text{INTAK}}$	47	I	CK
12	I/O	D4	30	O	$\overline{\text{INT}}$	48	I	$\overline{\text{RESET}}$
13	I/O	D3	31	I	$\overline{\text{CTSB}}$	49	O	DRQRxA
14	—	NC	32	I	$\overline{\text{DCDB}}$	50	O	$\overline{\text{RTSA}}$
15	I/O	D2	33	—	NC(OPEN)	51	—	NC
16	—	NC	34	I/O	$\overline{\text{TRxCB}}$	52	—	NC
17	I/O	D1	35	I	RxDB			
18	I/O	D0	36	I	XI1B/$\overline{\text{STRxCB}}$			


RTSB
39
TRxCB
34
XI1B/
STRxCB
36
XI2B/
SYNCB
37
DCDB
32
CTSB
31
RxDB
35
TxDB
38
CK
47
CLOCK/
STANDBY
CONTROL
CHANNEL B
D7 - D0
DATA BUS
BUFFER
INTERNAL BUS
RD
22
WR
11
C/D
23
B/A
24
RESET
48
READ/
WRITE
CONTROL
CHANNEL A
CR0-CR5
CR10-CR15
CONTROL
SIGNAL
BRG-H, L
SR12-SR15
CR8, CR9
SR8, SR9
SR0
Rx
0 - 3
4 - 7
BUFF
SR1 - SR4
SR10, SR11
CR6,
CR7
Tx
BUFFER
DRQRxA
49
DRQTxA
44
DTRB/DRQRxB
42
DTRA/DRQTxB
43
DMA
CONTROL
TxRx CLOCK
BRG
DPLL
RxCLK
TxCLK
TxRx CLOCK
CONTROL
OSC
TxRx CONTROL
TRANSMITTER
RECEIVER
INT
30
INTAK
29
PRI
28
PRO
27
INTERRUPT
CONTROL
50
RTSA
2
TRxCA
4
XI1A/
STRxCA
3
XI2A/
SYNCA
8
DCDA
6
CTSA
5
RxDA
1
TxDA


5
RxDA
6
CTSA
8
DCDA
4
XI1A/STRxCA
TxDA
1
XI2A/SYNCA
3
TRxCA
2
RTSA
50
35
RxDB
31
CTSB
32
DCDB
36
XI1B/STRxCB
TxDB
38
XI2B/SYNCB
37
TRxCB
34
RTSB
39
47
ø
22
RD
21
WR
23
C/D
24
B/A
48
RESET
D0
18
D1
17
D2
15
D3
13
D4
12
D5
11
D6
10
D7
9
DRQRxA
49
DRQTxA
44
DTRB/DRQRxB
42
DTRA/DRQTxB
43
29
INTAK
28
PRI
INT
30
PRO
27

INPUTS				FUNCTION	
WR	RD	B/$\overline{\text{A}}$	C/$\overline{\text{D}}$		
0	1	0	0	CHANNEL A	WRITE (TxD)
		1		CHANNEL B	
1	0	0	0	CHANNEL A	READ (RxD)
		1		CHANNEL B	
0	1	0	1	CHANNEL A	WRITE (CONTROL REGISTER)
		1		CHANNEL B	
1	0	0	1	CHANNEL A	READ (STATUS REGISTER)
		1		CHANNEL B	
1	1	×	×	HIGH-IMPEDANCE	
0	0	×	×	INHIBIT	

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE.

CK	:	SYSTEM CLOCK INPUT
WR	:	WRITE ENABLE INPUT
RD	:	READ ENABLE INPUT
B/$\overline{\text{A}}$	:	CHANNEL B/$\overline{\text{A}}$ SELECT INPUT
C/$\overline{\text{d}}$	:	CONTROL/$\overline{\text{DATA}}$ SELECT INPUT
D0 - D7	:	DATA BUS INPUTS/OUTPUTS
INT	:	INTERRUPT OUTPUT
INTAK	:	INTERRUPT ACKNOWLEDGE INPUT
PRI	:	PRIORITY INPUT
DRQTxA	:	DMA REQUEST TxA OUTPUT
DRQRxA	:	DMA REQUEST RxA OUTPUT
PRO	:	PRIORITY OUTPUT
$\overline{\text{DTRA}}$/DRQTxB	:	DATA TERMINAL READY A/DMA REQUEST TxB OUTPUT
$\overline{\text{DTRB}}$/DRQRxB	:	DATA TERMINAL READY B/DMA REQUEST RxB OUTPUT
CTSA, CTSB	:	CLEAR TO SEND A/B INPUT
DCDA, DCDB	:	DATA CARRIER DETECT A/B INPUT
RTSA, RTSB	:	REQUEST TO SEND A/B OUTPUT
RESET	:	RESET INPUT

Section 2
Spare Parts

2-1. Notes on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.

Parts list has the present standardized repair parts.

3. Stock of Parts

Parts marked with "o" at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

4. Harness

Harnesses with no part number are not registered as spare parts.

In need of repair, get components shown in the list and repair using them.

5. Destination Representation

The part indicated "For J/UC" in the spare parts list is used in the unit written below.

For J: The part is used in a unit for Japan.

For UC: The part is used in a unit for the U.S.A. and Canada.

2-2. Exploded Views

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Item	Title	Page
Upper panel Bottom plate Handle Panel (left) Battery lid	Top and bottom panels	2-4
Rear cabinet Battery retainer Battery connector	Battery case	2-6
Front panel Switch bottons Switch knobs	Front panel	2-8
Connectors Fuse CP-82 board CP-337 board	Connector panel	2-10
Display modules KY-315 board ADA-44 board SST-13 board	Front chassis and mounted circuit boards	2-12
VPR-53 board DPR-125 board DCP-22 board MB-825 board EQ-76 board Power assembly	Rear chassis and video boards	2-14
Cassette compartment	Cassette compartment	2-16
Reel table Slide link SE-510 board SE-435 board	S/T reel tables	2-18
Drum assembly Brush assembly (RP) Slip ring Reel motor Brake arm Drivig belt	Drum and S-side reel motor	2-20
CTL head FE head Video head cleaner Tape guide (S3)	CTL head and video head cleaner	2-22
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Item	Title	Page
T-side rail T-side slider T-side catcher T-side threading gear Tape guide (T1,T2)	T-side threading link	2-28
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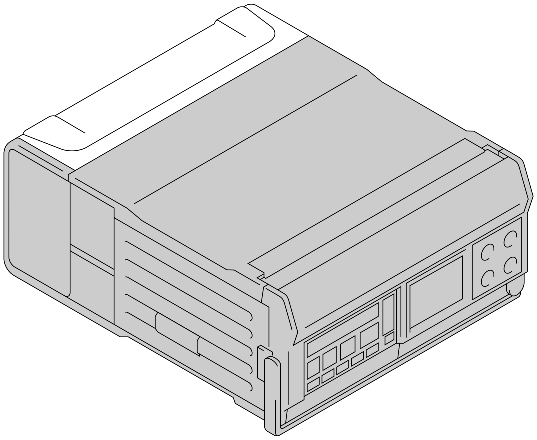
T-side reel motor T-side brake Drivig belt Pinch pressing arm Pinch pressing plunger	T-side reel motor and pinch press block	2-32
Treading motor Gear block Manual eject gear	Threading motor and gear train	2-34
Pinch roller arm T-side drawing arm T link DET-36 board Tape guide (T3)	CUE link and pinch arm	2-36

Top and Bottom Panels

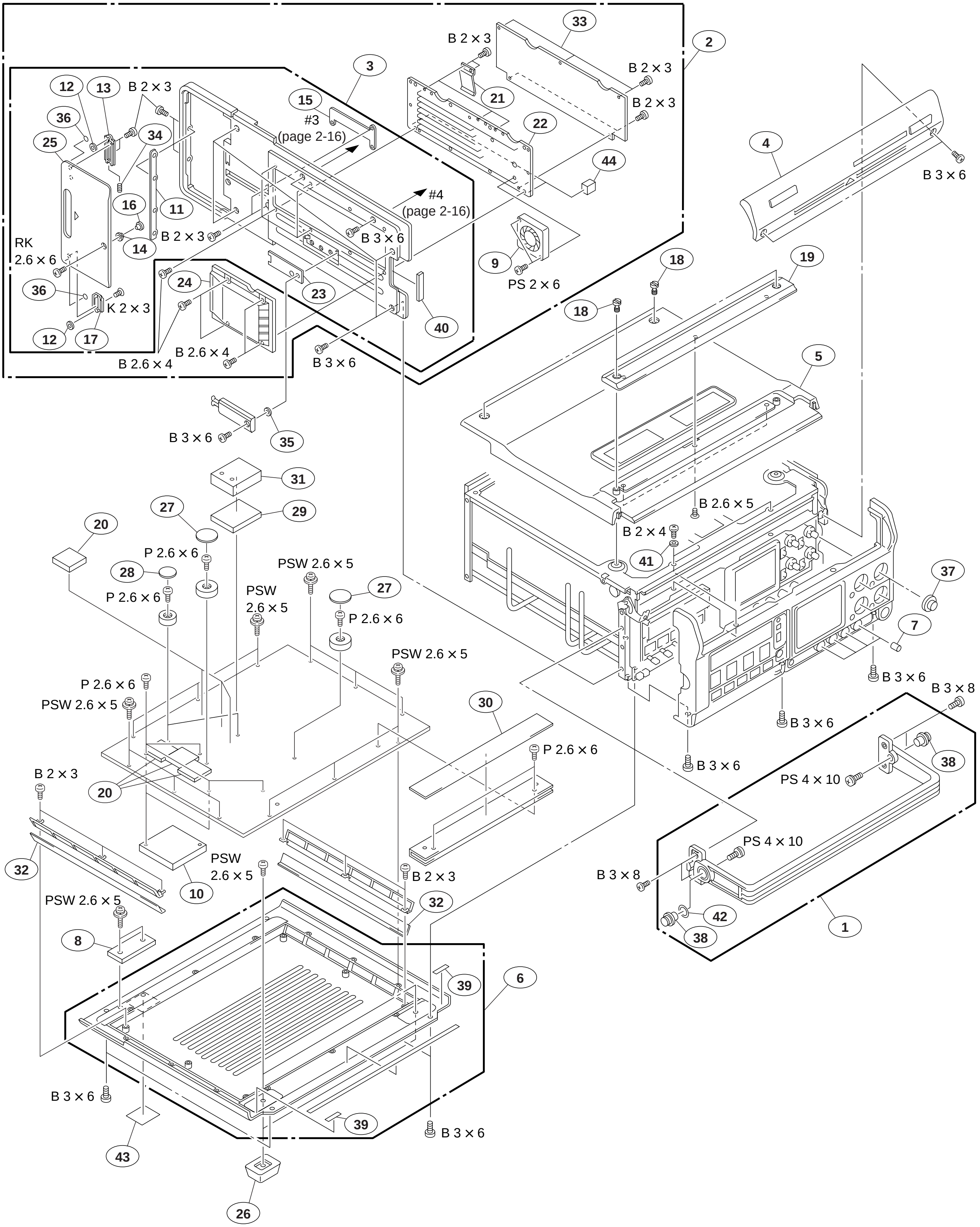


No.	Part No.	SP	Description
1	A-8278-239-A	o	HANDLE ASSY
2	A-8322-441-A	o	PANEL ASSY, LEFT
3	A-8322-442-A	o	PANEL SUB ASSY, LEFT
4	X-3605-473-1	o	COVER ASSY,FRONT
5	X-3605-476-1	o	PANEL SUB ASSY,UPPER
6	X-3605-546-2	o	PLATE SUB ASSY, BOTTOM
7	X-3664-208-0	s	KNOB, FADE
8	1-674-184-11	o	PRINTED CIRCUIT BOARD, CN-1926
9	1-698-987-11	s	MOTOR, DC FAN (FLAT TYPE)
10	1-763-126-11	s	FAN, D.C.
11	3-169-331-01	o	BRACKET,CABINET (REAR)
12	3-169-346-01	s	ROLLER (A)
13	3-169-347-05	o	HOLDER (B), ROLLER
14	3-169-348-02	s	ROLLER (B)
15	3-169-349-01	o	COVER,ROLLER
16	3-169-350-02	s	SHAFT, BT ROLLER
17	3-169-351-05	o	HOLDER (A), ROLLER
18	3-169-407-02	s	SCREW, LID
19	3-169-517-01	o	CUSHION(UPPER),ER
20	3-192-294-11	o	SHEET (SDI), RADIATION
21	3-622-315-01	o	SPRING (HP), LEAF
22	3-622-316-01	o	HP FIN
23	3-622-320-01	o	SHEET,PANEL,LEFT
24	3-622-322-01	o	COVER,FAN,LEFT
25	3-622-324-01	o	LID,BT
26	3-622-325-01	o	CUSHION,FB
27	3-622-327-01	o	SHEET(20),HEAT CONDUCTIVE
28	3-622-328-02	o	SHEET(16),HEAT CONDUCTIVE
29	3-622-329-01	o	SHEET(35X31),HEAT CONDUCTIVE
30	3-622-330-01	o	SHEET(190X24),HEAT CONDUCTIVE
31	3-622-331-02	o	SHEET(35X31),HEAT CONDUCTIVE,S
32	3-622-332-02	o	METAL NET
33	3-622-337-01	o	ADIABATIC SHEET,HP
34	3-644-718-00	s	SPRING, COMPRESSION
35	3-669-596-00	s	WASHER,2.3
36	3-682-543-00	s	RETAINER,FLYWHEEL
37	3-691-399-01	s	KNOB,VR
38	3-693-977-01	o	SHAFT,HANDLE
39	3-694-129-01	o	CUSHION(S)
40	3-694-261-01	o	CUSHION,SIDE
41	3-701-437-01	s	WASHER PLASTIC (2.1X0.14)
42	3-728-663-01	s	RING,O
43	3-921-816-01	s	LABEL, NI-CD RECYCLE
44	9-911-842-99	s	CUSHION,RUBBER

Screws/Washers

Part No.	SP	Description
7-621-284-20	s	SCREW +P2.6X6
7-621-555-10	s	SCREW +K 2X3
7-621-662-20	s	SCREW +RK 2.6X6
7-621-759-35	s	SCREW +PSW 2.6X5
7-621-772-00	s	SCREW +B2X3(SWCH, BZN-N)
7-621-772-08	s	SCREW +B2X3(SWCH, CR-N)
7-621-772-10	s	SCREW +B2X4
7-621-775-10	s	SCREW +B2.6X4
7-621-775-20	s	SCREW +B2.6X5
7-628-253-20	s	SCREW +PS 2X6
7-682-547-09	s	SCREW +B3X6
7-682-548-09	s	SCREW +B 3X8
7-682-662-09	s	SCREW +PS 4X10
7-682-903-11	s	SCREW +PWH 3X6

Top and Bottom Panels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#4
(page 2-16)
RK
2.6 × 6
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B 3 × 6
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PS 2 × 6
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K 2 × 3
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PSW
2.6 × 5
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PSW 2.6 × 5
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8
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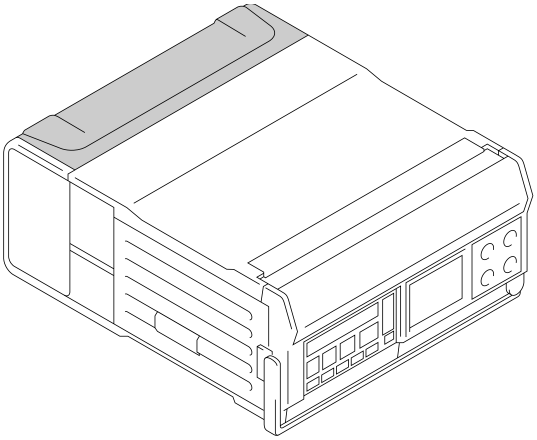
39
B 3 × 6
43
26

Battery Case



No.	Part No.	SP	Description
101	A-8278-224-D	o	PARTITION ASSY
102	A-8278-225-H	o	PARTITION ASSY,CASE
103	A-8322-043-A	o	CABINET ASSY, REAR
104	X-3678-499-1	s	ARM ASSY, LOCK
105	1-959-844-12	o	HARNESS, SUB (BATT-CON2)
106	2-389-320-01	o	CUSHION
107	3-169-424-01	s	SPRING,COMPRESSION
108	3-169-437-04	o	BRACKET (B), BT
109	3-169-543-01	o	BRACKET (A), BT
110	3-169-570-01	o	CUSHION (A)
111	3-308-704-00	s	SPRING,TENSION
112	3-328-345-01	s	SPRING,TENSION
113	3-622-326-02	o	CUSHION,RB
114	3-691-393-01	o	BRACKET,CASE
115	3-691-394-01	o	BRACKET,CONNECTOR
116	3-691-518-01	o	PUSH BUTTON
117	3-691-526-01	o	ROLLER
118	3-691-534-02	o	SPRING(2),RETURN,ARM
119	3-691-535-01	o	SPRING(4),RETURN,ARM
120	3-691-595-02	o	RETAINER BATTERY
121	4-606-856-01	s	SPRING, TENSION

Screws/Washers

	7-621-772-10	s	SCREW +B2X4
	7-621-775-10	s	SCREW +B2.6X4
	7-621-775-20	s	SCREW +B2.6X5
	7-624-104-04	s	STOP RING,E-2
	7-682-547-09	s	SCREW +B3X6

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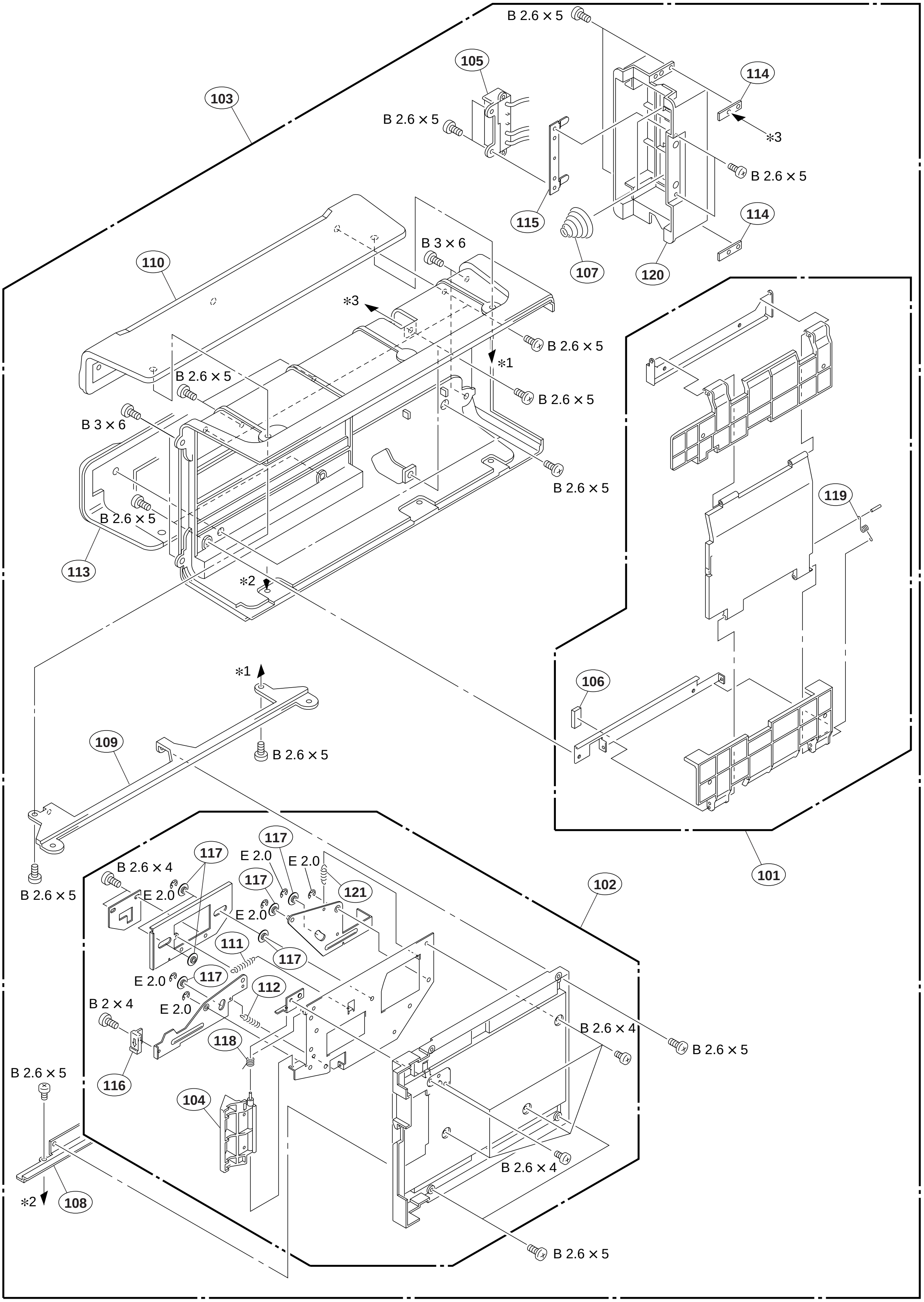
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∗3
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B 2.6 × 5
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B 2.6 × 5
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E 2.0
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E 2.0
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102
B 2.6 × 5
E 2.0
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E 2.0
117
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E 2.0
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B 2.6 × 5
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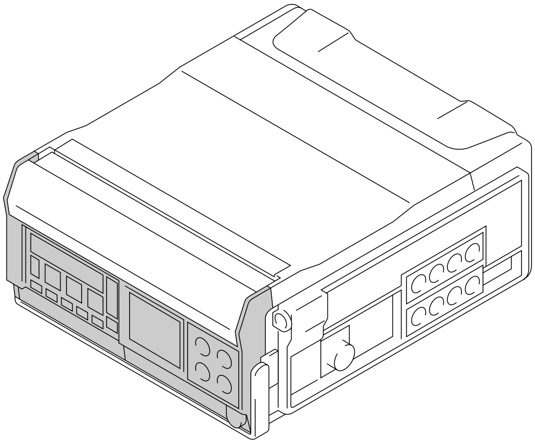
B 2.6 × 5
116
104
B 2.6 × 4
∗2
108
B 2.6 × 5

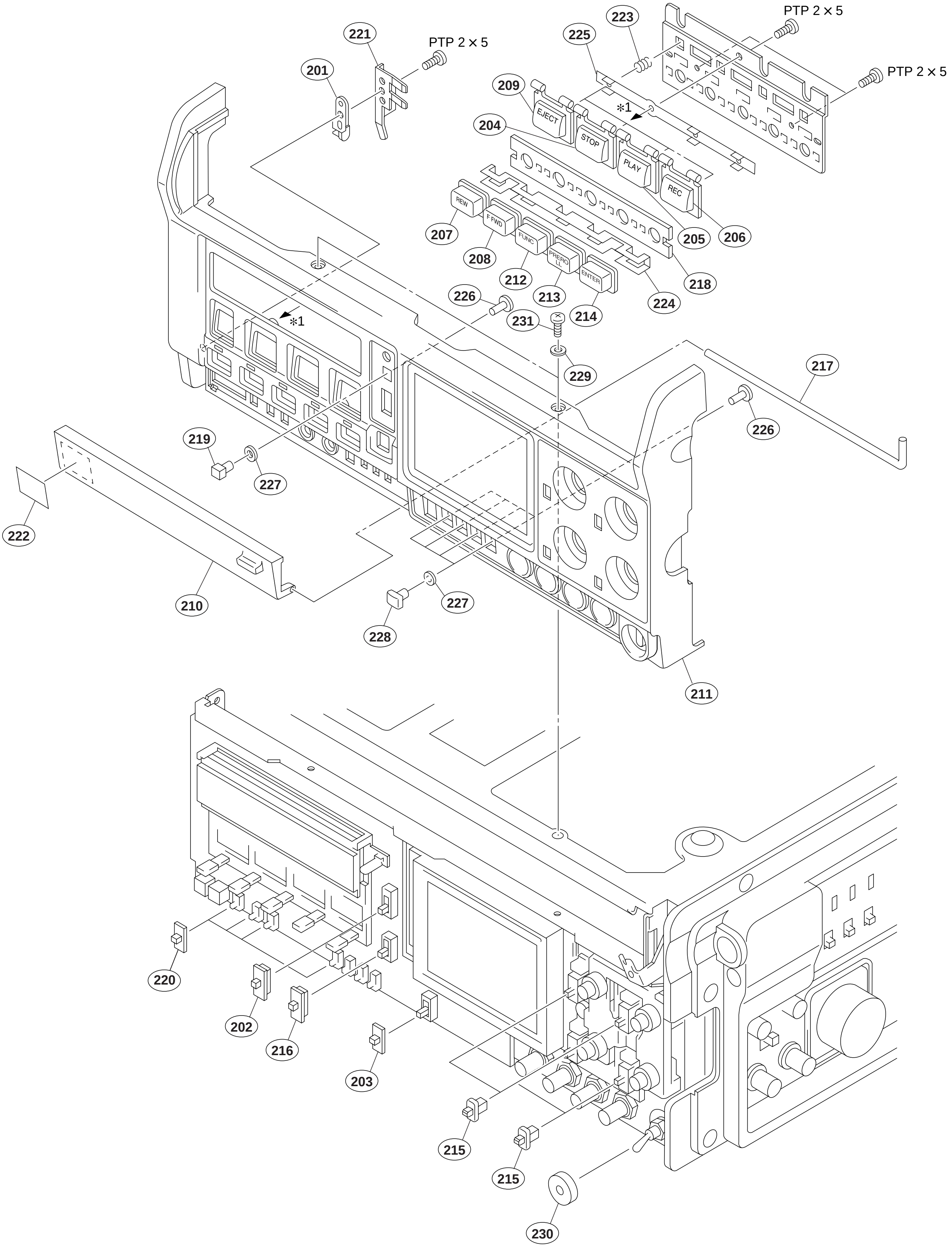
Front Panel



No.	Part No.	SP	Description
201	X-3165-755-1	o	RETAINER ASSY,TOGGLE
202	X-3165-862-1	s	KNOB ASSY (3P)
203	X-3165-863-1	s	KNOB ASSY (2P)
204	X-3166-129-1	o	BUTTON ASSY (STOP)
205	X-3166-130-1	o	BUTTON ASSY (PLAY)
206	X-3166-131-1	o	BUTTON ASSY (REC)
207	X-3166-132-1	o	BUTTON ASSY (REW)
208	X-3166-133-1	o	BUTTON ASSY (F FWD)
209	X-3166-137-1	o	BUTTON ASSY (EJECT)
210	X-3605-474-1	o	COVER(HDW) ASSY,TC
211	X-3605-475-2	o	PANEL SUB ASSY,FRONT
212	X-3605-477-1	o	ASSY,BUTTON(FUNC)
213	X-3605-478-1	o	ASSY,BUTTON(PREROLL)
214	X-3605-479-1	o	ASSY,BUTTON(ENTER)
215	X-3678-392-1	o	KNOB ASSY,SELECTION
216	X-3719-113-1	s	KNOB ASSY
217	3-169-388-01	o	SHAFT,TC COVER
218	3-169-389-01	o	CUSHION,KEY
219	3-169-390-01	s	BUTTON,RESET
220	3-170-161-01	s	KNOB, SW
221	3-173-283-02	o	PLATE, GROUND, FP
222	3-184-994-03	o	ISR STICKER (S)
223	3-571-850-02	s	SPRING,COMPRESSION
224	3-622-672-01	o	PLATE,SHIELD,LED
225	3-622-673-01	o	PLATE2,SHIELD,LED
226	3-686-085-01	o	PIN,PUSH BUTTON
227	3-686-086-01	o	CUSHION,BUTTON
228	3-691-507-01	o	BUTTON,MENU
229	3-701-437-21	s	WASHER,PLASTIC (2.1X0.5)
230	3-729-007-01	o	PLATE,ORNAMENTAL,TOGGLE SWITCH
231	3-742-886-01	s	SCREW (M2X4)

Screws/Washers

	7-685-103-19	s	SCREW +PTP 2X5


PTP 2 × 5
PTP 2 × 5
PTP 2 × 5
EJECT
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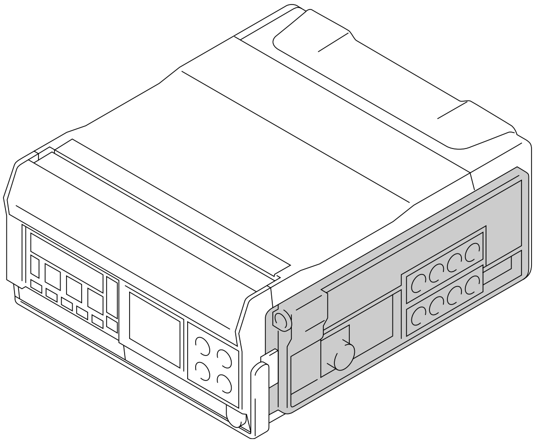
STOP
PLAY
REC
REW
F FWD
FUNC
PREROLL
ENTER
*1

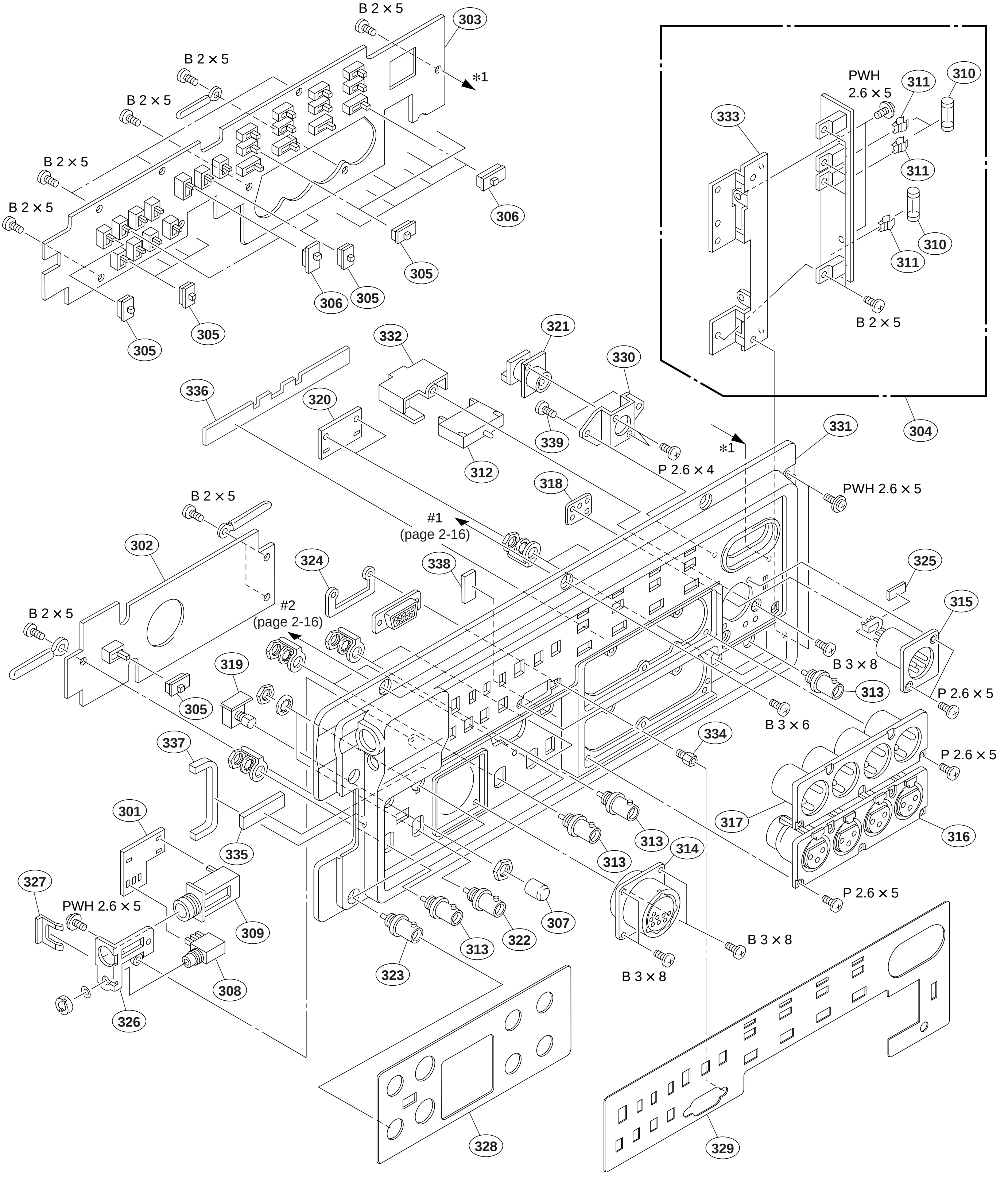
Connector Panel



No.	Part No.	SP	Description
301	A-8321-342-A	o	MOUNTED CIRCUIT BOARD, DUS-173
302	A-8321-355-A	o	MOUNTED CIRCUIT BOARD, CC-82
303	A-8321-356-A	o	MOUNTED CIRCUIT BOARD, CP-337
304	A-8321-357-A	o	MOUNTED CIRCUIT BOARD, FU-76
305	X-3166-331-1	s	KNOB ASSY (2 POSI)
306	X-3166-332-1	s	KNOB ASSY (3 POSI)
307	X-3682-814-0	s	KNOB ASSY,CONTROL
308	1-507-743-21	s	JACK,STEREO MINI
309	1-507-863-51	s	JACK,LARGE TYPE (6.4)
310	⚠ 1-532-747-11	s	FUSE, GLASS 5A/125V (20MM)(F1/F3)
	⚠ 1-576-048-11	s	FUSE, GLASS 10A/125V (20MM)(F2)
311	1-533-189-11	s	HOLDER, FUSE
312	⚠ 1-533-951-11	s	BREAKER
313	1-561-336-00	s	CONNECTOR,COAXIAL
314	1-562-245-11	o	CONNECTOR(RECEPTACLE), 26P
315	1-564-603-11	s	CONNECTOR(WITH DC SW) 4P
316	1-566-616-11	s	CONNECTOR,XLR (F) (4 GANG)
317	1-566-617-11	s	CONNECTOR,XLR (M) (4 GANG)
318	1-658-773-11	o	PRINTED CIRCUIT BOARD, DC-85
319	1-673-089-11	o	PRINTED CIRCUIT BOARD, VR-254
320	1-673-090-11	o	PRINTED CIRCUIT BOARD, CN-1752
321	1-673-091-11	o	PRINTED CIRCUIT BOARD, CN-1795
322	1-790-715-11	s	CABLE ASSY, COAXIAL
323	1-790-716-11	s	CABLE ASSY, COAXIAL
324	2-139-018-01	s	PLATE,NUT
325	2-389-320-01	o	CUSHION
326	3-169-382-02	o	BRACKET, HEADPHONE
327	3-169-384-01	o	PLATE,SNAP
328	3-617-704-01	o	SHEET(S),CONNECTOR PANEL
329	3-617-705-01	o	SHEET(L),CONNECTOR PANEL (FOR J)
	3-623-281-01	o	SHEET(L),CONNECTOR PANEL (FOR UC)
330	3-617-706-01	o	REMOTE BRACKET
331	3-617-724-01	o	PANEL,CONNECTOR
332	3-617-730-02	o	BRACKET,BREAKER
333	3-622-892-01	o	BRAKET,PANEL
334	3-673-910-31	s	SCREW, CONNECTOR
335	3-694-193-01	o	CUSHION,SOUNDPROOF 1
336	3-694-194-01	o	CUSHION,SOUNDPROOF 2
337	3-694-261-01	o	CUSHION,SIDE
338	9-911-838-99	s	CUSHION,MIC
339	7-627-553-37	s	SCREW, PRECISION +P2X3

Screws/Washers

No.	Part No.	SP	Description
	7-621-259-39	s	SCREW +P 2.6X5
	7-621-771-06	s	SCREW +B2X5
	7-627-556-38	s	SCREW +P2.6X4
	7-682-547-09	s	SCREW +B3X6
	7-682-548-04	s	SCREW +B3X8
	7-682-902-11	s	SCREW +PWH 2.6X5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(page 2-16)
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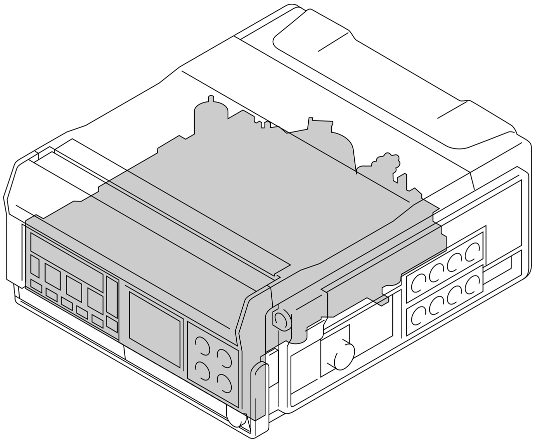
B 3 × 8

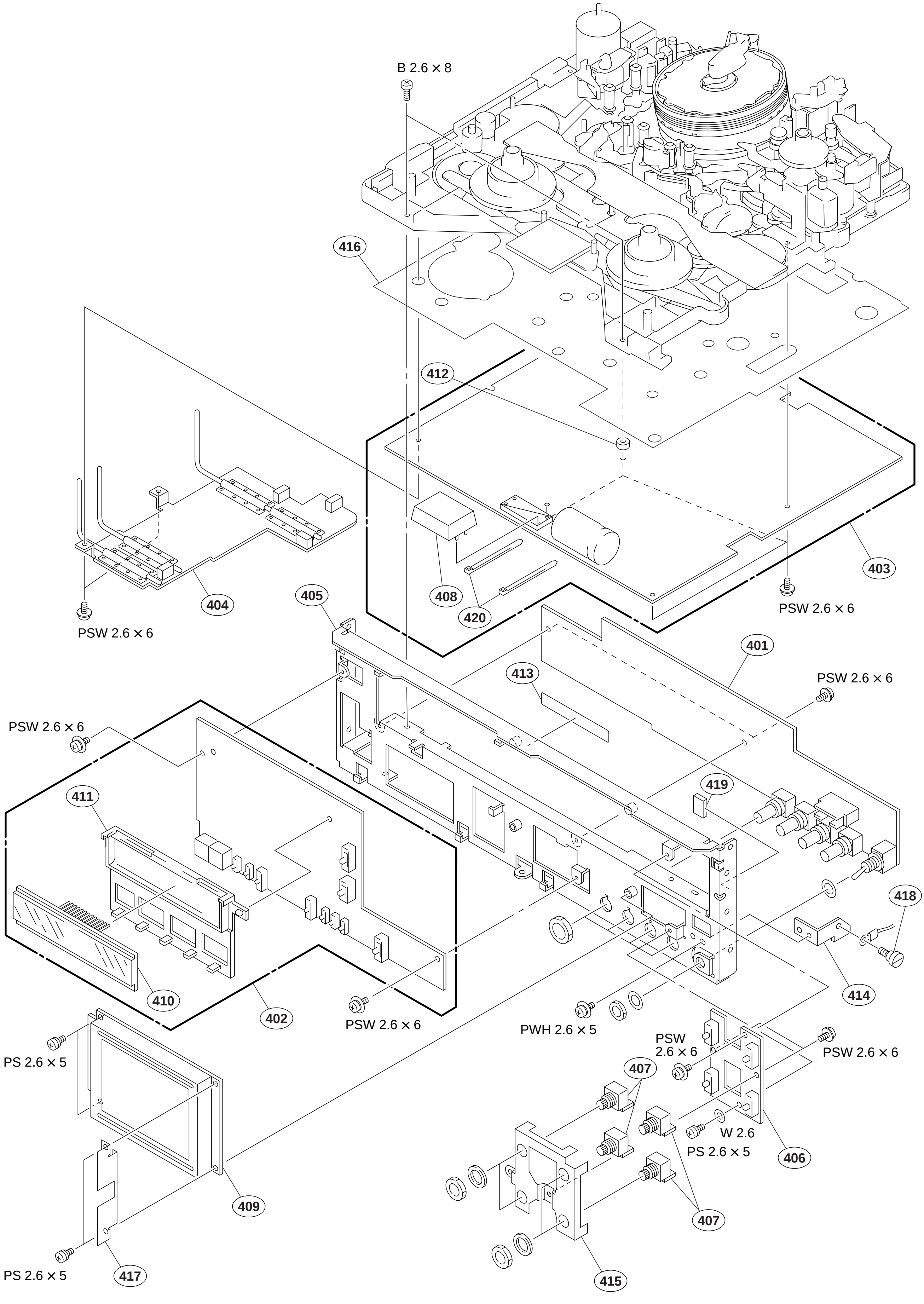
Front Chassis and Mounted Circuit Boards



No.	Part No.	SP	Description
401	A-8276-930-A	o	MOUNTED CIRCUIT BOARD, ADA-44
402	A-8276-948-A	o	MOUNTED CIRCUIT BOARD, KY-315
403	A-8321-354-A	o	MOUNTED CIRCUIT BOARD, SST-13
404	X-3605-545-1	o	IC PLATE ASSY
405	X-3678-391-7	o	CHASSIS,FRONT ASSY
406	1-657-808-11	o	PRINTED CIRCUIT BOARD, VR-194
407	1-657-809-11	o	PRINTED CIRCUIT BOARD, VR-206
408 ⚠	1-767-156-11	s	OSCILLATOR, CRYSTAL (IN BATTERY)
409	1-801-022-11	s	DISPLAY MODULE, LIQUID CRYSTAL
410	1-809-345-11	s	DISPLAY PANEL, LIQUID CRYSTAL
411	3-169-546-02	o	HOLDER, LCD
412	3-545-567-00	s	TIRE,FF
413	3-622-367-01	o	SHIELD,ANTENNA
414	3-691-395-03	o	PLATE,FIXED BOARD
415	3-691-398-01	o	PLATE,BRACKET VOLUME
416	3-691-580-03	o	INSULATOR, SST
417	3-695-882-01	o	PLATE,SHIELD
418	4-950-558-02	o	SCREW (S)
419	9-911-845-99	s	CUSHION,METER
420	3-701-991-01	o	BAND,BINDING

Screws/Washers

Part No.	SP	Description
7-621-759-40	s	SCREW +PSW 2.6X6
7-621-775-40	s	SCREW +B 2.6X8
7-628-254-00	s	SCREW +PS 2.6X5
7-682-902-11	s	SCREW +PWH 2.6X5
7-688-002-03	s	WASHER 2.6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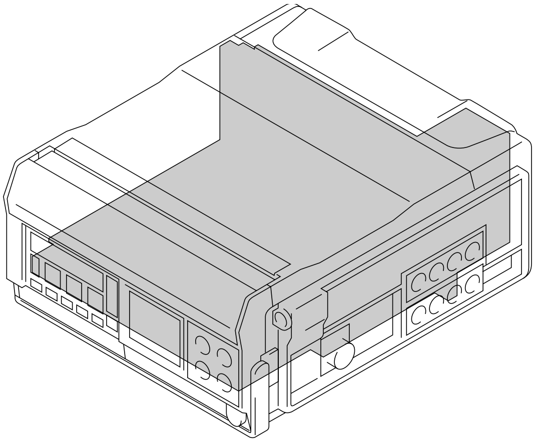
PSW 2.6 × 6
PSW 2.6 × 6
PWH 2.6 × 5
PSW
2.6 × 6
PSW 2.6 × 6
PS 2.6 × 5
W 2.6
PS 2.6 × 5
PS 2.6 × 5

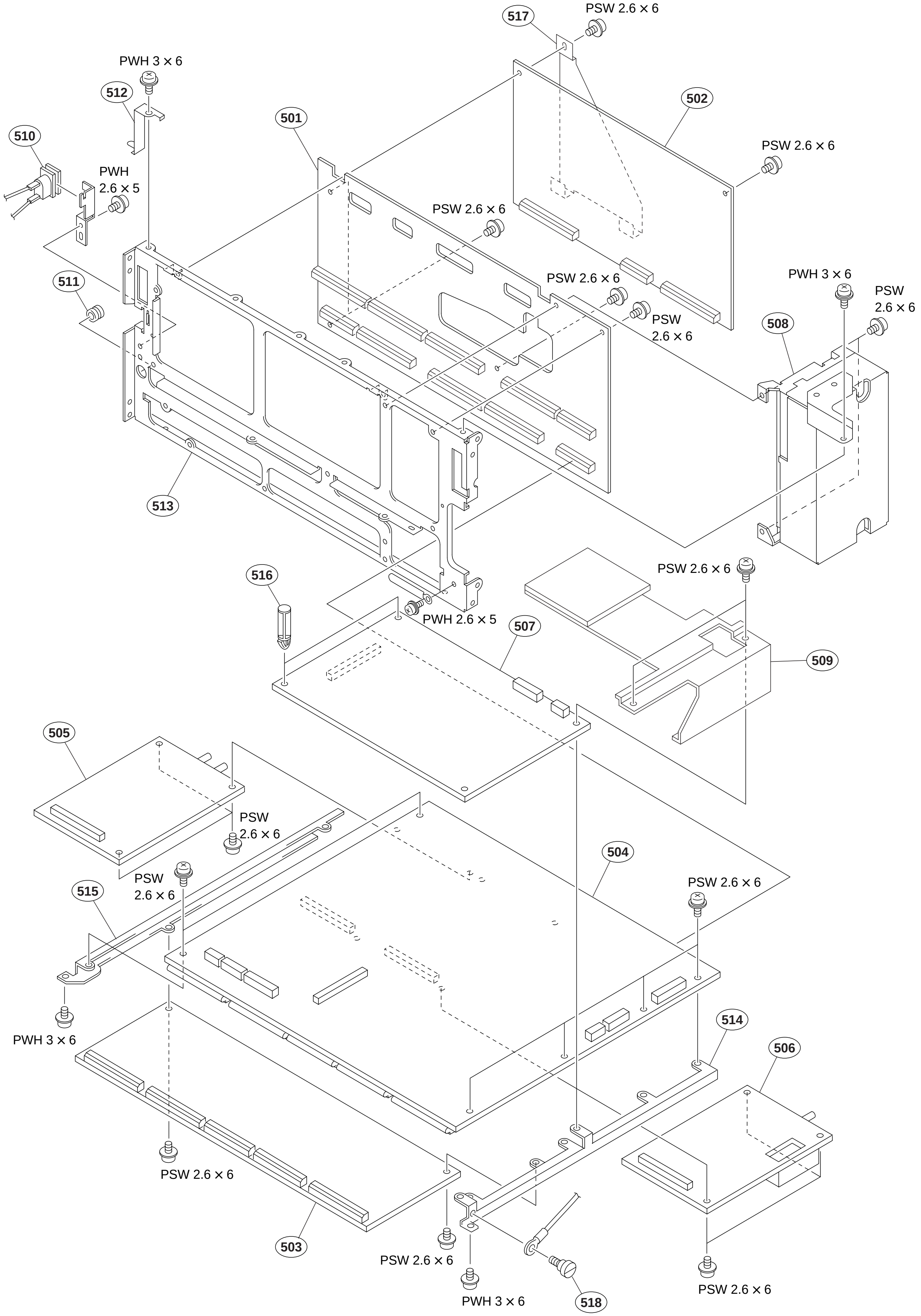
Rear Chassis and Video Boards



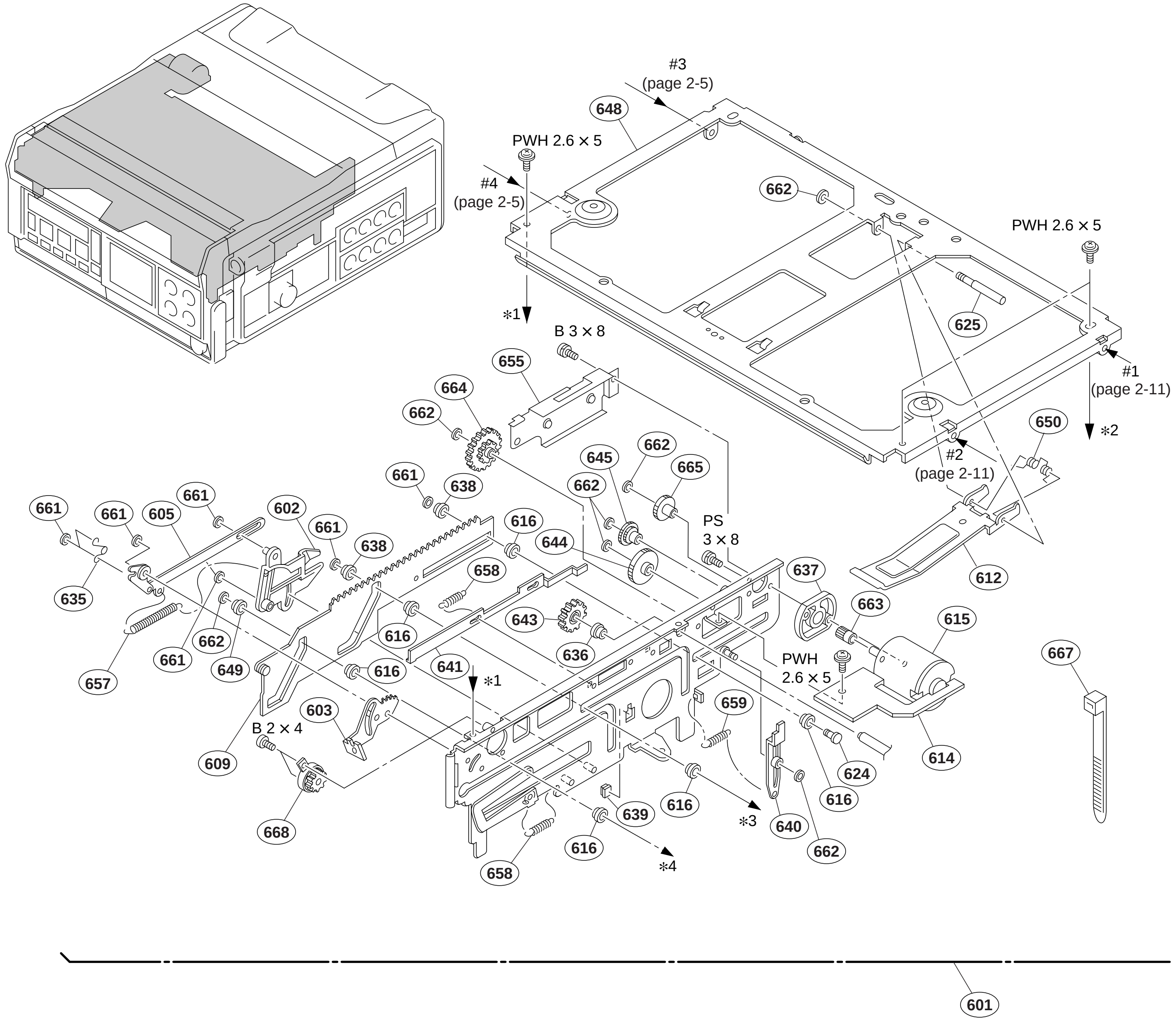
No.	Part No.	SP	Description
501	A-8321-338-A	o	MOUNTED CIRCUIT BOARD, MB-825
502	A-8321-353-A	o	MOUNTED CIRCUIT BOARD, EQ-76
503	A-8321-709-A	s	MOUNTED CIRCUIT BOARD, DPR-125
504	A-8321-710-A	s	MOUNTED CIRCUIT BOARD, VPR-53
505	A-8321-887-A	o	MOUNTED CIRCUIT BOARD, TX-68A
506	A-8321-889-A	o	MOUNTED CIRCUIT BOARD, RX-46A
507	A-8321-959-A	s	MOUNTED CIRCUIT BOARD, DCP-22
508	A-8322-042-A	s	POWER ASSY
509	X-3605-604-2	o	HEAT SINK ASSY,DCP
510	1-507-905-11	s	JACK, DC
511	2-377-709-00	o	BUSHING,RUBBER
512	3-177-802-01	o	LUG,GROUND
513	3-617-707-01	o	CHASSIS,REAR
514	3-617-708-01	o	PB HOLDER (R)
515	3-617-709-02	o	PB HOLDER (L)
516	3-622-338-01	o	HOLDER,PC BOARD
517	3-622-455-01	o	PLATE,BLIND
518	4-950-558-02	o	SCREW (S)

Screws/Washers

	7-621-759-40	s	SCREW +PSW 2.6X6
	7-682-902-11	s	SCREW +PWH 2.6X5
	7-682-903-11	s	SCREW +PWH 3X6


517
PSW 2.6 × 6
PWH 3 × 6
512
502
501
510
PSW 2.6 × 6
PWH
2.6 × 5
PSW 2.6 × 6
PSW 2.6 × 6
PWH 3 × 6
511
PSW
2.6 × 6
PSW
2.6 × 6
508
513
PSW 2.6 × 6
516
PWH 2.6 × 5
507
509
505
PSW
2.6 × 6
504
PSW
2.6 × 6
PSW 2.6 × 6
515
PWH 3 × 6
514
506
PSW 2.6 × 6
503
PSW 2.6 × 6
PWH 3 × 6
518
PSW 2.6 × 6

Cassette Compartment


#3
(page 2-5)
648
PWH 2.6 × 5
#4
(page 2-5)
662
PWH 2.6 × 5
625
*1
B 3 × 8
655
664
662
#1
(page 2-11)
650
*2
#2
(page 2-11)
662
645
665
661
638
662
661
661
605
661
602
661
638
616
644
PS
3 × 8
637
612
658
663
615
635
643
616
636
667
662
661
616
641
*1
PWH
2.6 × 5
657
649
603
659
B 2 × 4
609
624
614
616
639
616
*3
640
668
662
616
*4
658
601

No.	Part No.	SP	Description
601	A-8269-732-D	s	CASSETTE COMPARTMENT ASSY
602	X-3165-739-1	o	CAM (L) ASSY
603	X-3165-740-1	o	ARM (L) ASSY,FF
604	X-3165-741-1	o	ARM (R) ASSY,FF
605	X-3165-742-1	o	ARM (L) ASSY,SWITCHING
606	X-3165-744-2	o	ARM (L) ASSY
607	X-3165-745-2	o	ARM (R) ASSY
608	X-3165-746-3	o	ARM ASSY, RACK DRIVING
609	X-3165-747-4	o	RACK (L) ASSY, C
610	X-3165-748-4	o	RACK (R) ASSY, C
611	X-3165-770-2	o	LEVER (R) ASSY, PUSH-OUT
612	X-3167-893-1	o	ARM ASSY, C LOCK
613	1-638-701-12	o	PRINTED CIRCUIT BOARD, CS-25
614	1-638-702-11	o	PRINTED CIRCUIT BOARD, CS-26
615	1-698-335-11	s	MOTOR, DC (SVD-1489)
616	3-169-352-02	o	ROLLER(A),C
617	3-169-439-01	o	RETAINER(LR),CASSETTE
618	3-169-440-01	o	RETAINER(LF),CASSETTE
619	3-169-441-01	o	RETAINER(S),CASSETTE
620	3-169-442-02	o	SPRING (R), S GUIDE
621	3-169-443-02	o	SPRING (L), S GUIDE
622	3-169-444-01	o	SPRING (R),DETECTION
623	3-169-445-01	o	SPRING (L),DETECTION
624	3-169-456-01	o	SHAFT (R),ROLLER
625	3-169-457-01	o	SHAFT,ARM,LOCK
626	3-169-458-02	o	ARM, JOINT
627	3-169-459-01	o	ARM (R),LIFT
628	3-169-460-01	o	ARM, L DETECTION
629	3-169-461-01	o	ARM (L),LIFT
630	3-169-462-01	o	PLATE,GUIDE,S
631	3-169-463-03	o	ARM (L), PUSH-OUT
632	3-169-464-03	o	ARM (R), PUSH-OUT
633	3-169-466-03	o	GUIDE(R),CASSETTE
634	3-169-467-01	o	GUIDE (L),CASSETTE
635	3-169-468-02	o	SPRING (A), TOGGLE
636	3-169-469-01	o	BEARING
637	3-169-470-02	o	WASHER, C MOTOR
638	3-169-471-01	s	ROLLER(B),C
639	3-169-472-01	o	CAM,PUSH-OUT
640	3-169-473-01	o	SHUTTER,C DOWN

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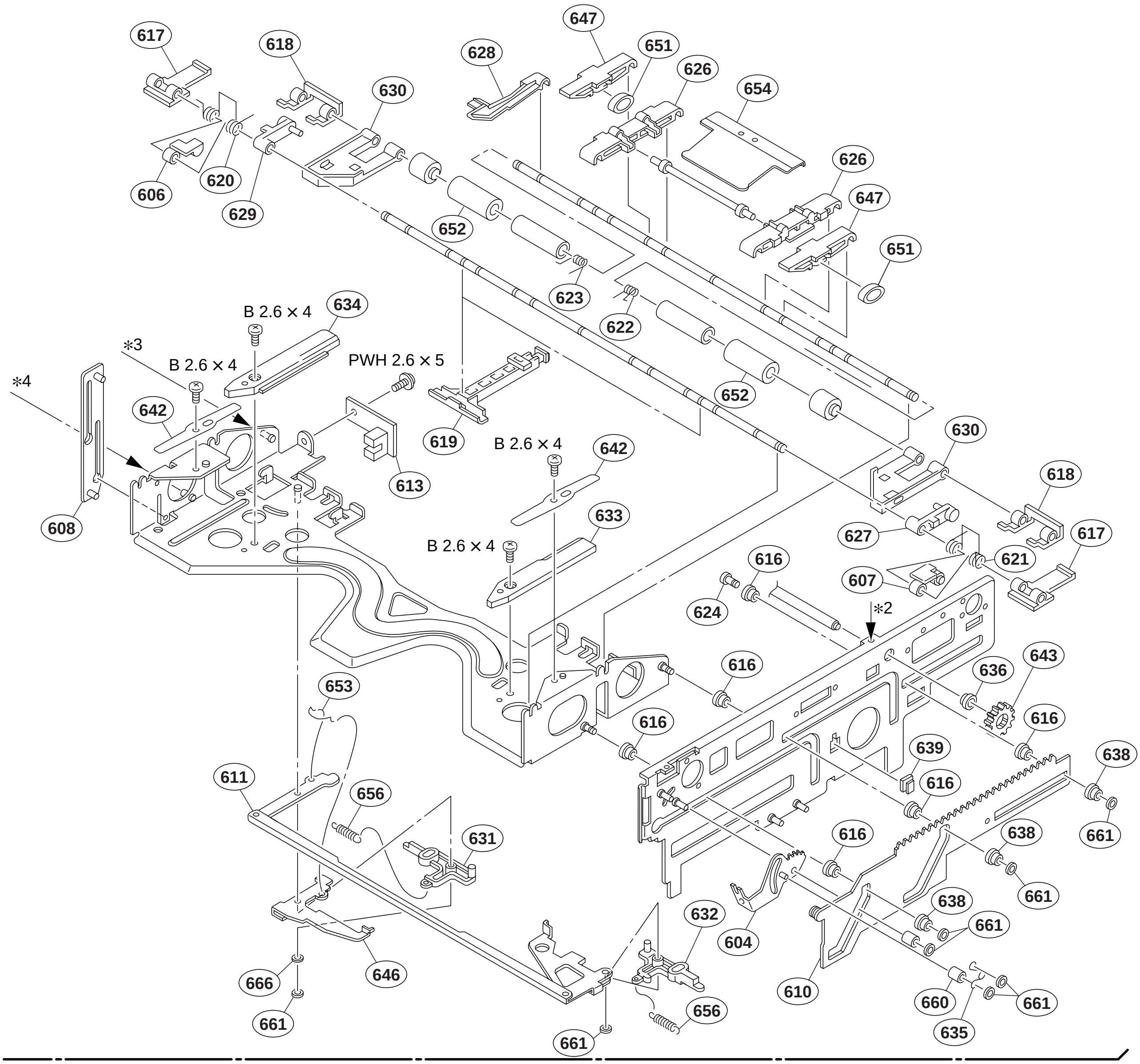
617
618
628
647
651
626
654
630
606
620
629
652
626
647
651
623
622
634
B 2.6 × 4
*3
*4
B 2.6 × 4
PWH 2.6 × 5
642
608
619
613
B 2.6 × 4
642
652
630
618
633
B 2.6 × 4
627
617
616
621
607
624
*2
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636
616
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653
616
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631
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638
616
632
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661

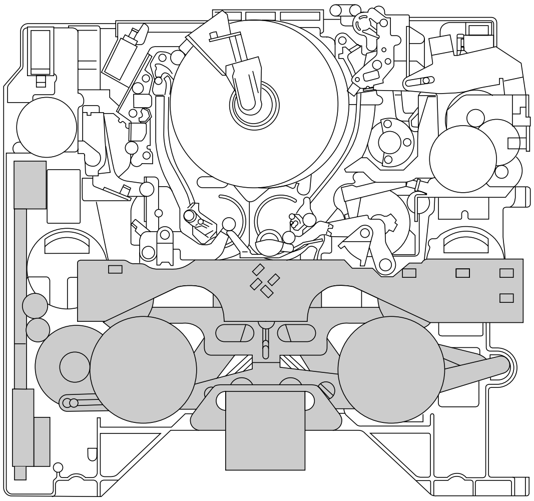
No.	Part No.	SP	Description
641	3-169-474-02	o	SHUTTER, C UP
642	3-169-475-03	o	SPRING, CASSETTE RETAINER
643	3-169-477-02	s	GEAR (5), C
644	3-169-479-03	s	GEAR (3), C
645	3-169-480-04	s	GEAR (2), C
646	3-169-482-02	o	LEVER (L), PUSH-OUT
647	3-169-499-03	o	LEVER, CORRECTION DETECTION
648	3-169-557-11	o	STAY, C
649	3-170-821-01	s	ROLLER (C), C
650	3-170-823-02	s	SPRING, LOCK ARM
651	3-172-394-01	o	SPACER, RUBBER
652	3-172-873-01	s	ROLLER, CASSETTE RETAINER
653	3-172-874-02	s	SPRING, C IN SHUTTER
654	3-172-876-03	o	SPRING (A), C STOPPER
655	3-178-212-02	s	SUPPORT,SHAFT,C GEAR
656	3-515-167-00	s	SPRING, TENSION
657	3-556-464-00	s	SPRING,TENSION
658	3-578-388-00	s	SPRING
659	3-646-214-00	s	SPRING
660	3-657-841-01	s	SPACER (DIA 2X2)

No.	Part No.	SP	Description
661	3-669-465-01	s	WASHER(1.5), STOPPER
662	3-676-387-00	s	POLY-SLIDER (DIA 1.6)
663	3-694-266-01	s	GEAR,C PINION
664	3-694-286-01	s	GEAR,C4
665	3-695-848-01	s	GEAR,C1
666	3-701-437-01	s	WASHER PLASTIC (2.1X0.14)
667	3-701-991-01	o	BAND, BINDING
668	3-712-786-11	s	DAMPER,OIL

Screws/Washers

	7-621-772-18	s	SCREW +B 2X4
	7-621-775-10	s	SCREW +B2.6X4
	7-682-548-04	s	SCREW +B3X8
	7-682-648-09	s	SCREW +PS 3X8
	7-682-902-11	s	SCREW +PWH 2.6X5

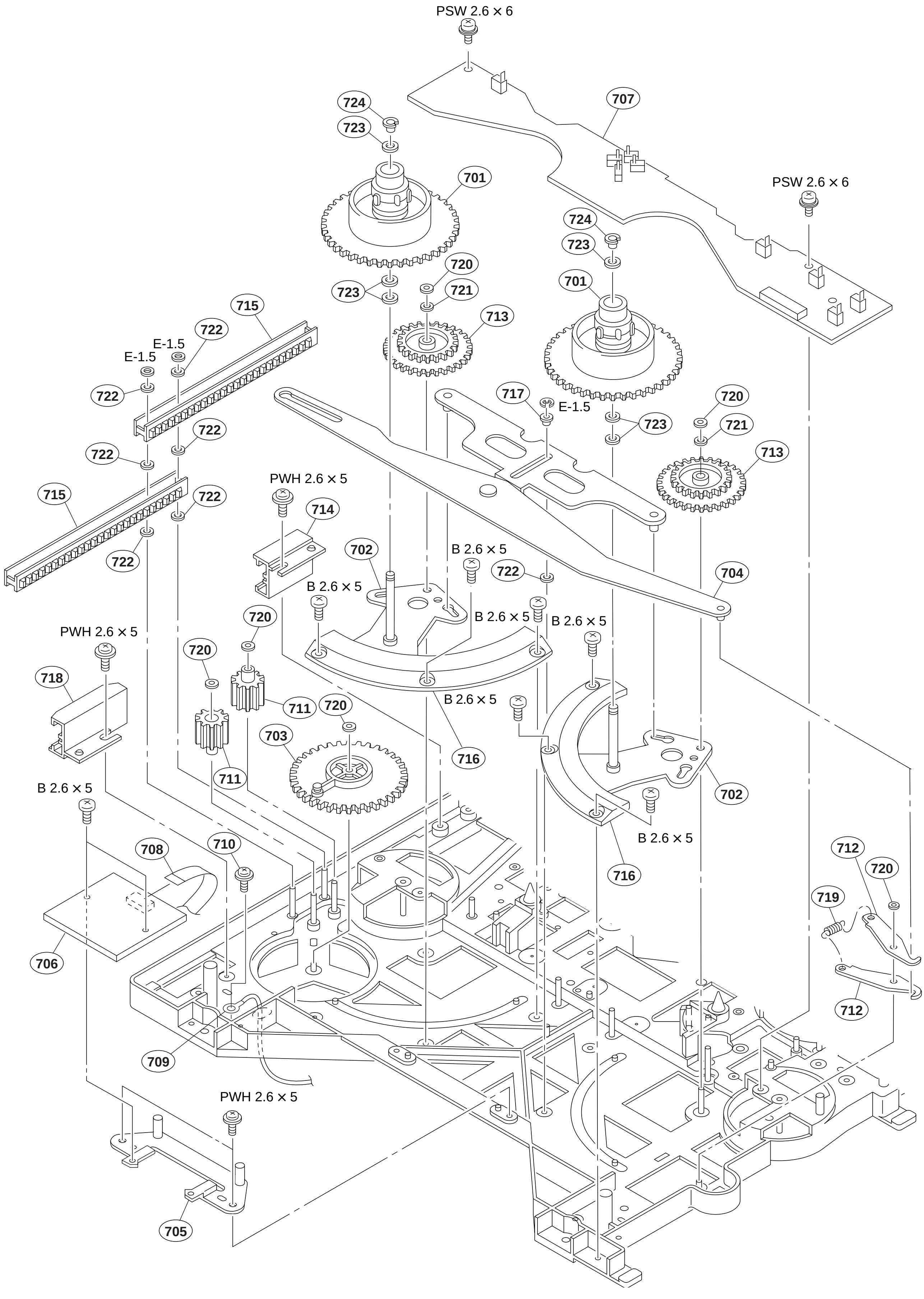
S/T Reel Tables



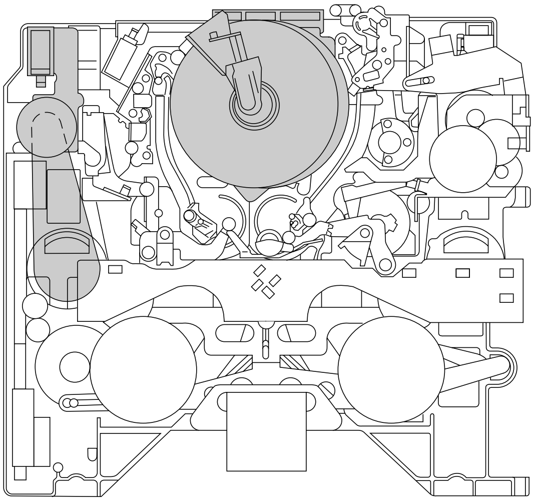
No.	Part No.	SP	Description
701	A-6739-095-A	s	TABLE ASSY,REEL
702	X-3165-760-1	o	ARM ASSY,REEL
703	X-3165-763-1	s	GEAR ASSY,OSCILLATION
704	X-3165-775-2	o	LINK ASSY, SLIDE
705	X-3605-472-2	o	BASE ASSY, C SUPPORT
706	1-669-823-11	o	PRINTED CIRCUIT BOARD, SE-435
707	1-673-075-11	o	PRINTED CIRCUIT BOARD, SE-510
708	1-690-131-11	s	CORD,CONNECTION (FLAT TYPE)
709	1-810-573-11	s	SENSOR, DEW CONDENSATION
710	2-640-315-01	o	SCREW(M2X5),SMALL
711	3-169-500-01	s	GEAR,IDLE
712	3-169-501-02	o	PLATE, LIMITER
713	3-169-504-01	s	GEAR,RELAY
714	3-169-509-01	s	RAIL,GUIDE
715	3-169-511-01	o	RACK,DRIVING
716	3-169-512-03	o	RETAINER, REEL ARM
717	3-171-987-01	s	ROLLER (G)
718	3-172-123-01	s	RAIL (F), GUIDE
719	3-549-014-00	s	SPRING
720	3-676-387-00	s	POLY-SLIDER (DIA 1.6)
721	3-701-437-11	s	WASHER PLASTIC (2.1X0.25)
722	3-701-437-21	s	WASHER,PLASTIC (2.1X0.5)
723	3-701-439-11	s	WASHER PLASTIC (3.1X0.25)
724	3-703-074-01	s	CAP 3, SHAFT

Screws/Washers

No.	Part No.	SP	Description
	7-621-759-40	s	SCREW +PSW 2.6X6
	7-621-775-20	s	SCREW +B2.6X5
	7-624-102-04	s	RING,(E,1.5)
	7-682-902-11	s	SCREW +PWH 2.6X5


PSW 2.6 × 6
PSW 2.6 × 6
E-1.5
E-1.5
E-1.5
PWH 2.6 × 5
B 2.6 × 5
B 2.6 × 5
B 2.6 × 5
B 2.6 × 5
PWH 2.6 × 5
B 2.6 × 5
B 2.6 × 5
B 2.6 × 5
PWH 2.6 × 5

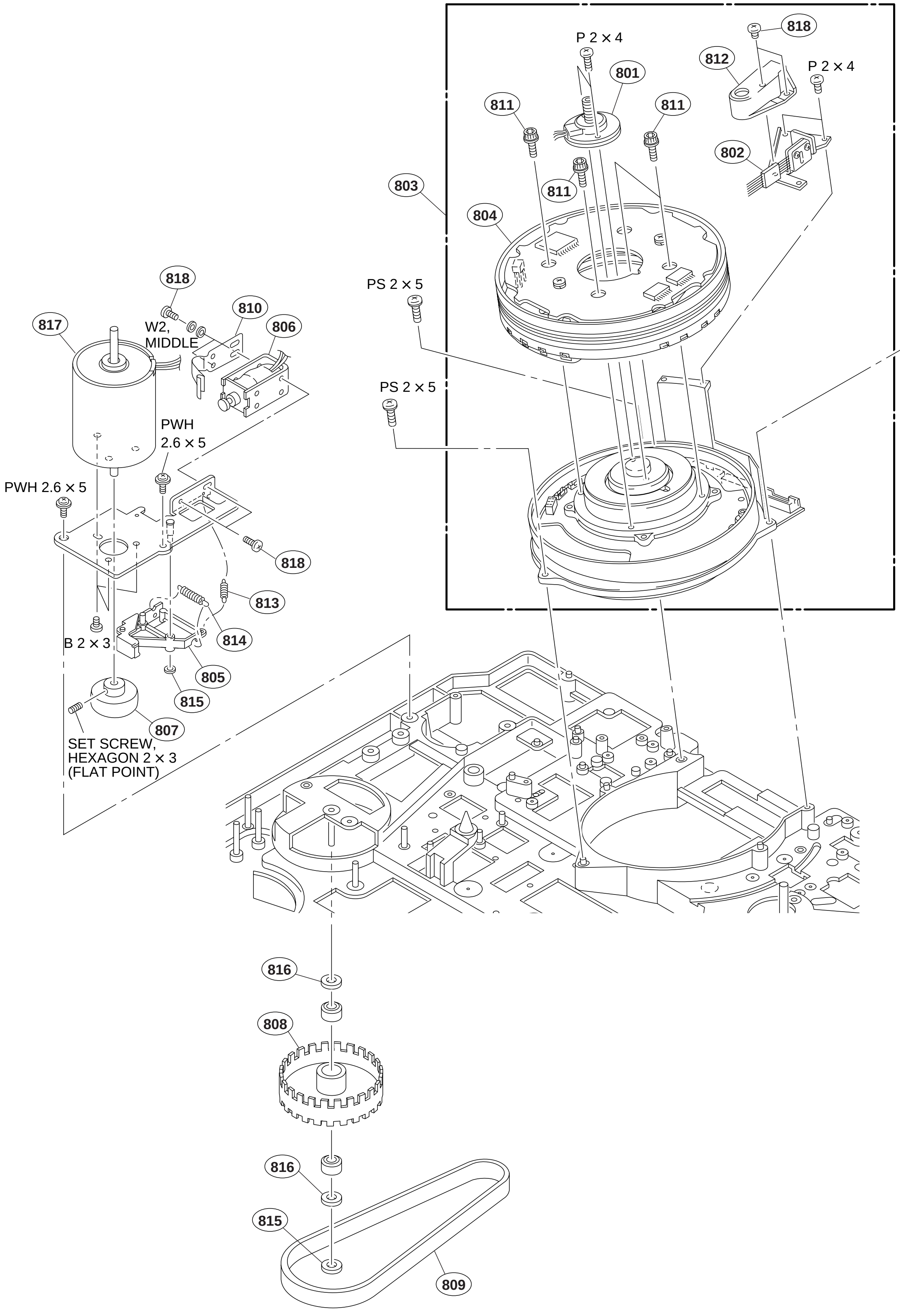
Drum and S-side Reel Motor



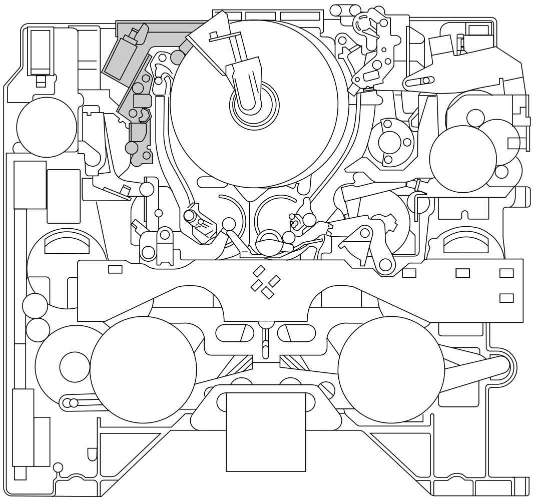
No.	Part No.	SP	Description
801	A-8263-855-A	s	RING ASSY (RP), SLIP
802	A-8263-856-A	s	BRUSH ASSY (RP)
803	A-8316-736-B	s	DRUM ASSY, DHH-04A-R
804	A-8316-738-B	s	UPPER DRUM, DHR-04-R
805	X-3165-731-2	s	ARM ASSY, BRAKE
806	1-454-334-51	s	SOLENOID,PLUNGER
807	3-169-370-03	o	PULLEY, MOTOR
808	3-169-503-03	s	PULLEY (B), RELAY
809	3-172-003-01	s	BELT,DRIVING
810	3-173-411-01	s	SPRING,BRAKE PLATE
811	3-185-531-01	s	BOLT M 2X8, W HEXAGON
812	3-185-532-01	o	COVER, BRUSH
813	3-307-374-00	s	SPRING,TENSION
814	3-642-482-00	s	SPRING,COMPRISSION
815	3-676-387-00	s	POLY-SLIDER (DIA 1.6)
816	3-701-437-01	s	WASHER PLASTIC (2.1X0.14)
817	8-835-441-01	s	MOTOR(R432276751A)DC 10W UNDER
818	7-627-553-17	s	SCREW, PRECISION +P2X2

Screws/Washers

	Part No.	SP	Description
	7-621-732-08	s	SET-SCREW,HEX 2X3 (FLAT)
	7-621-772-08	s	SCREW +B2X3
	7-628-253-15	s	SCREW +PS 2X5
	7-682-902-11	s	SCREW +PWH 2.6X5
	7-688-001-12	s	WASHER W2 (M)


P 2 × 4
P 2 × 4
PS 2 × 5
PS 2 × 5
W2,
MIDDLE
PS 2 × 5
PWH
2.6 × 5
PWH 2.6 × 5
B 2 × 3
SET SCREW,
HEXAGON 2 × 3
(FLAT POINT)

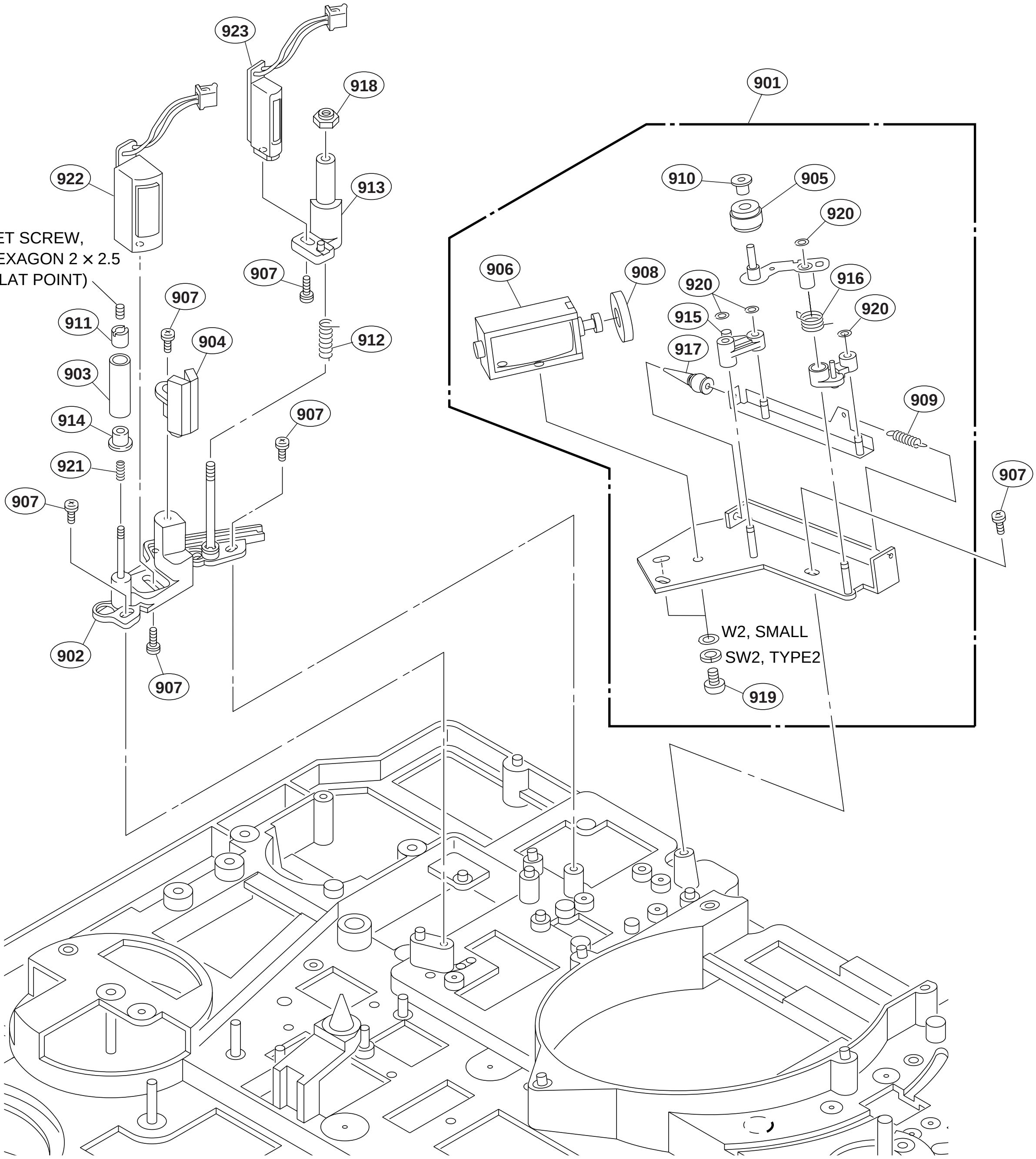
CTL Head and Video Head Cleaner



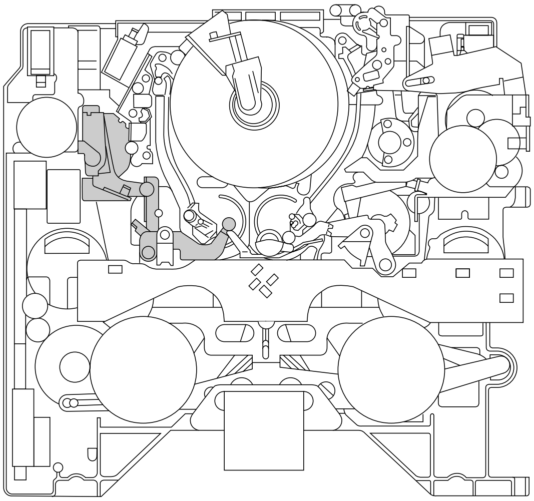
No.	Part No.	SP	Description
901	A-8278-220-D	o	CLEANER ASSY,VIDEO HEAD
902	X-3678-118-2	o	BASE ASSY,CTL FE
903	X-3678-129-2	s	ROLLER (2)ASSY,RESIN
904	X-3678-142-1	o	CLEANER ASSY,TAPE
905	X-3949-109-1	s	ROLLER ASSY,AHC
906	1-454-607-21	s	SOLENOID, PLUNGER
907	2-640-315-01	o	SCREW(M2X5),SMALL
908	3-183-901-01	s	WASHER, CL
909	3-527-188-00	s	SPRING, TENSION
910	3-615-320-01	o	CAP,CR
911	3-679-729-02	s	FLANGE,UPPER
912	3-680-043-02	s	SPRING,CTL
913	3-680-044-02	o	BRACKET,CTL
914	3-680-230-01	s	FLANGE, LOWER
915	3-691-552-01	o	LEVER,SOLENOID
916	3-691-555-01	o	SPRING,TORSION
917	3-691-562-01	o	SHOCK ABSORBER
918	3-698-829-01	s	NUT,NYLON
919	3-713-786-51	s	SCREW +B 2X3
920	3-726-829-01	s	WASHER,STOPPER
921	3-729-011-01	s	SPRING, COMPRESSION(COIL)
922	8-825-770-74	s	HEAD, FE(EF291-21)
923	8-825-779-72	s	CTL HEAD, PS244-21D

Screws/Washers

No.	Part No.	SP	Description
	7-621-731-08	s	SET-SCREW,HEX 2X2.5(FLAT)
	7-623-205-22	s	WASHER SPRING (2MM)
	7-688-001-01	s	WASHER W2 SMALL


SET SCREW,
HEXAGON 2 × 2.5
(FLAT POINT)
W2, SMALL
SW2, TYPE2

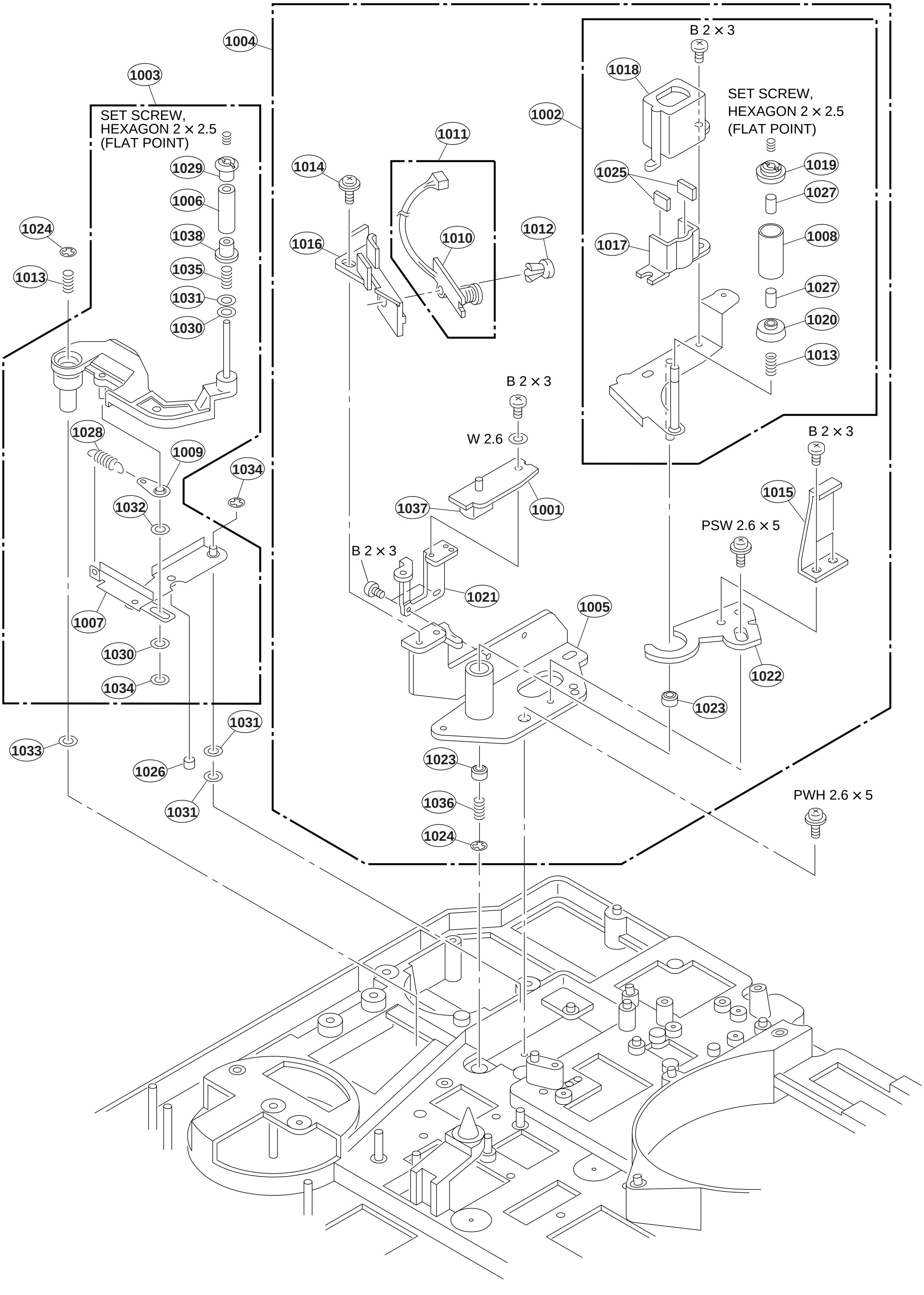
Tension Regulator and S-side Drawing Arm



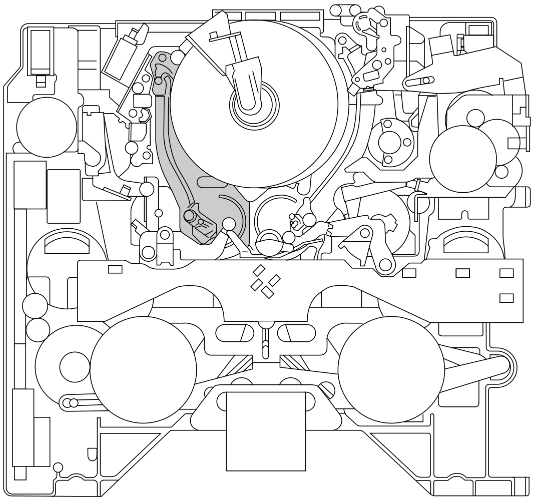
No.	Part No.	SP	Description
1001	A-6754-272-A	o	MOUNTED CIRCUIT BOARD, TR-57
1002	A-8269-451-C	s	TENSION REGULATOR ASSY
1003	A-8269-452-A	o	ARM ASSY, S
1004	A-8322-697-A	o	REGULATOR ASSY, TENSION
1005	X-3605-471-2	o	BASE(HD)ASSY,S-TEN
1006	X-3678-091-3	s	COLLER ASSY
1007	X-3678-388-2	o	DRAWING ARM,ASSY
1008	X-3678-389-2	s	S-TEN ROLLER,ASSY
1009	X-3678-390-1	o	LAG,S-ARM,ASSY
1010	1-543-316-21	s	HEAD,SENSING (SMALL TYPE)
1011	1-948-409-11	o	HARNESS (MB44-TTOPA)
1012	2-279-715-01	s	RIVET,NYLON
1013	2-618-901-00	s	SPRING, COMPRESSION
1014	2-640-315-01	o	SCREW(M2X5),SMALL
1015	3-169-302-02	o	SPRING (TR), PLATE
1016	3-169-304-02	o	BASE,END SENSOR
1017	3-169-305-01	o	PLATE,YOKE
1018	3-169-336-01	o	GUARD,DME
1019	3-174-315-01	s	FLANGE (UPPER)
1020	3-174-316-02	s	FLANGE (LOWER)
1021	3-617-695-02	o	HOLDER,TR-57
1022	3-617-699-02	o	PLATE(HD),TENSION ADJUSTMENT
1023	3-669-443-01	s	BEARING, BALL (NO FLANGE)
1024	3-669-465-01	s	WASHER(1.5), STOPPER
1025	3-680-828-01	o	MAGNET,COBALT
1026	3-691-378-01	s	ROLLER (B)
1027	3-691-380-02	s	ROLLER C
1028	3-691-381-01	s	SPRING,EXTENSION
1029	3-691-382-02	s	FLANGE,UPPER
1030	3-701-436-11	s	WASHER (1.6X0.25)
1031	3-701-436-21	s	WASHER POLY (1.6X0.5)
1032	3-701-437-01	s	WASHER PLASTIC (2.1X0.14)
1033	3-701-437-11	s	WASHER PLASTIC (2.1X0.25)
1034	3-726-829-01	s	WASHER,STOPPER
1035	3-729-011-01	s	SPRING, COMPRESSION(COIL)
1036	3-914-590-01	s	SPRING (R2)
1037	8-745-001-07	s	DME DM-230-1
1038	9-910-999-34	s	FLANGE,UNDER

Screws/Washers

	7-621-731-08	s	SET-SCREW,HEX 2X2.5(FLAT)
	7-621-759-35	s	SCREW +PSW 2.6X5
	7-621-772-08	s	SCREW +B2X3
	7-682-902-11	s	SCREW +PWH 2.6X5
	7-688-002-11	s	WSHER 2.6


SET SCREW, HEXAGON 2 × 2.5 (FLAT POINT)
B 2 × 3
SET SCREW, HEXAGON 2 × 2.5 (FLAT POINT)
B 2 × 3
W 2.6
B 2 × 3
B 2 × 3
PSW 2.6 × 5
PWH 2.6 × 5

S-side Threading Link

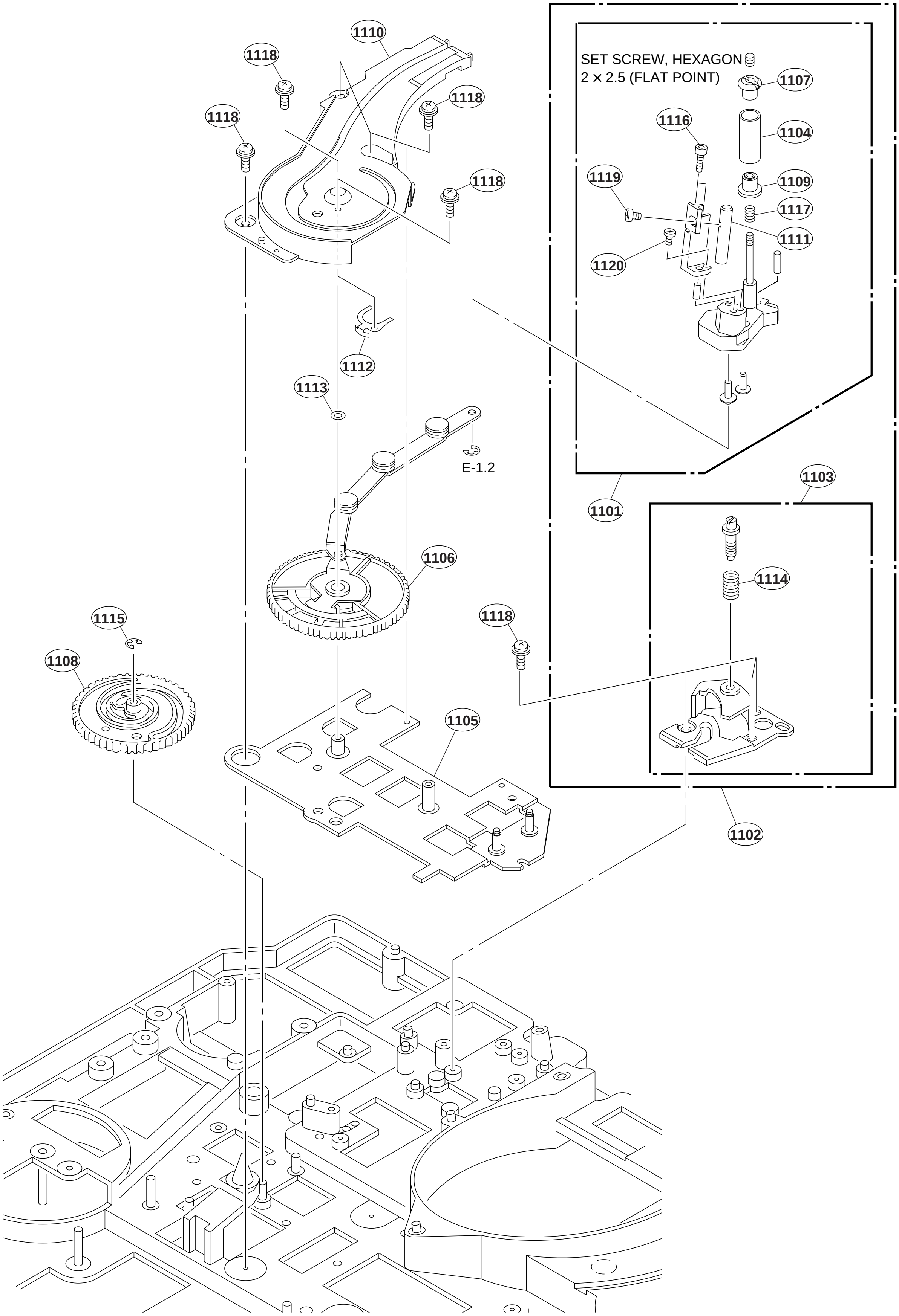


No.	Part No.	SP	Description
1101	A-8269-454-C	s	SLIDER ASSY, S
1102	A-8272-676-B	s	BLOCK ASSY, S DRAWER
1103	A-8278-032-D	o	CATCHER S ASSY
1104	X-3678-091-3	s	COLLER ASSY
1105	X-3678-380-2	o	BASE,THREADING GEAR ASSY
1106	X-3678-464-1	o	GEAR ASSY,THREADING S
1107	3-679-729-02	s	FLANGE,UPPER
1108	3-679-777-04	o	GEAR,ARM,DRAWER
1109	3-680-230-01	s	FLANGE, LOWER
1110	3-691-360-03	o	RAIL,S
1111	3-691-577-01	s	GUIDE,SLANT
1112	3-691-880-01	o	LINK PROTECTOR
1113	3-701-439-11	s	WASHER PLASTIC (3.1X0.25)
1114	3-716-167-01	s	SPRING,COMPRESSION(COIL)
1115	3-726-829-01	s	WASHER,STOPPER
1116	3-727-809-01	s	BOLT,HEXAGON SOCKET
1117	3-729-011-01	s	SPRING, COMPRESSION(COIL)
1118	3-729-013-21	s	SCREW(M1.4X2.5),WASHER HEAD
1119	7-627-551-87	s	SCREW, PRECISION +P1.4X1.8
1120	7-627-850-57	s	SCREW, PRECISION +P1.4X3.5

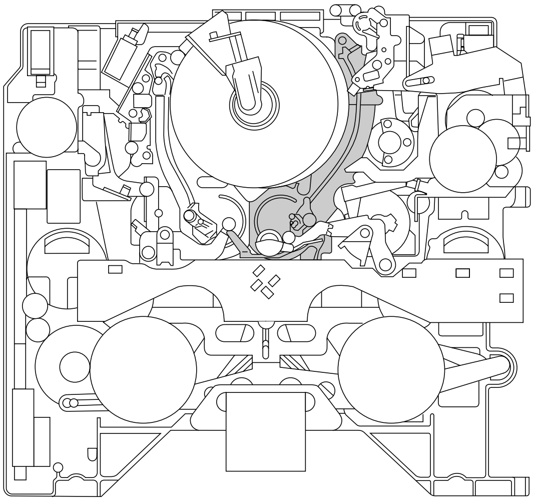
Screws/Washers

	7-621-731-08	s	SET-SCREW,HEX 2X2.5(FLAT)
	7-624-101-04	s	E RING (1.2)

S-side Threading Link


1110
1118
1118
1118
1118
SET SCREW, HEXAGON
2 × 2.5 (FLAT POINT)
1107
1116
1104
1119
1109
1117
1111
1120
1112
1113
E-1.2
1101
1103
1106
1114
1115
1118
1108
1105
1102

T-side Threading Link

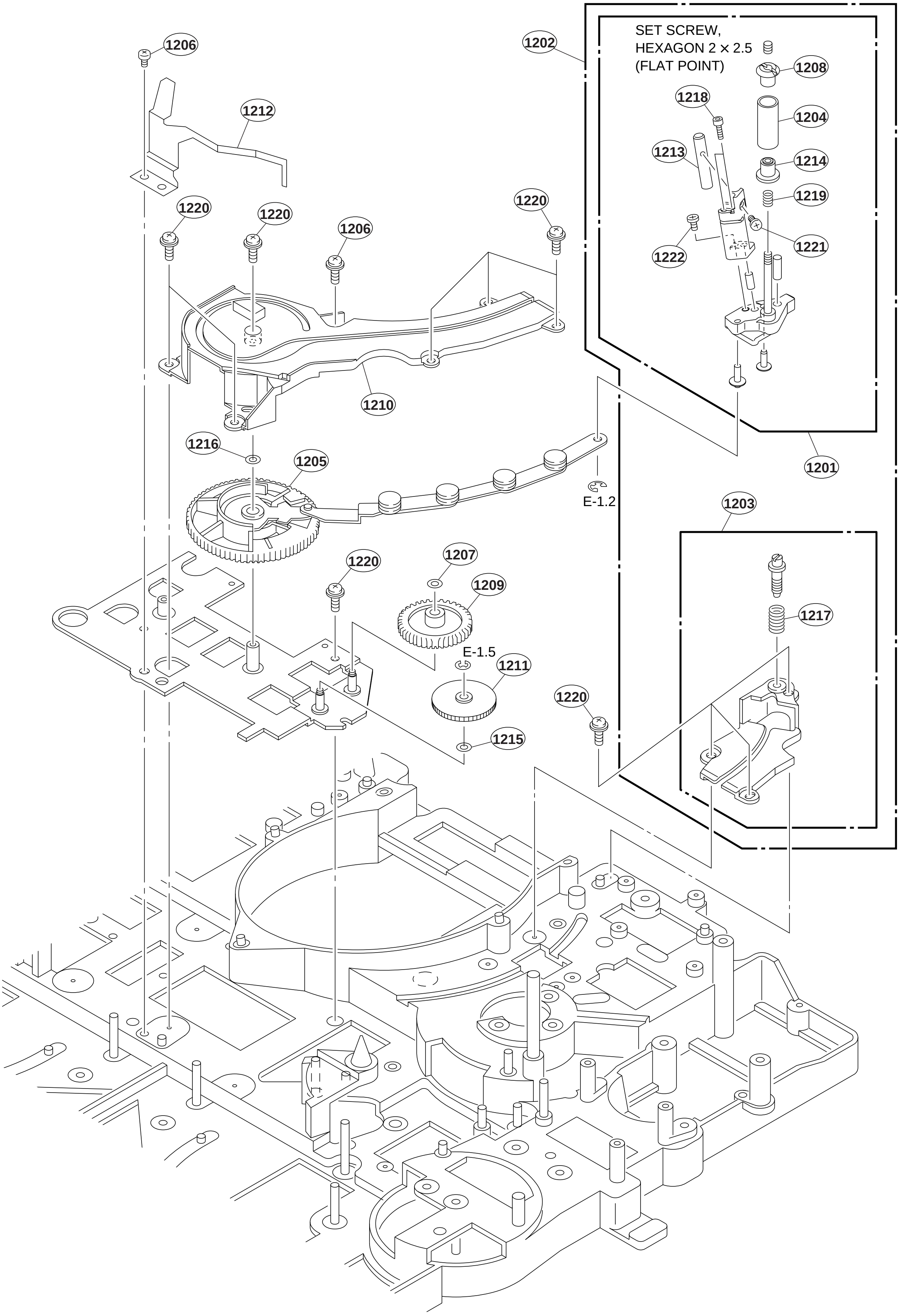


No.	Part No.	SP	Description
1201	A-8269-453-C	s	SLIDER ASSY, T
1202	A-8272-677-B	s	BLOCK ASSY, T DRAWER
1203	A-8278-033-D	o	CATCHER T ASSY
1204	X-3678-091-3	s	COLLER ASSY
1205	X-3678-379-4	o	GEAR ASSY,THREADING T
1206	2-640-315-01	s	SCREW(M2X5),SMALL
1207	3-559-408-11	s	WASHER,POLYETHYLENE,DIA.1.2
1208	3-679-729-02	s	FLANGE,UPPER
1209	3-679-764-01	o	GEAR,MIDWAY,ST DRIVING
1210	3-691-344-01	o	RAIL,T
1211	3-691-352-03	s	GEAR,ST DRIVING
1212	3-691-563-02	o	PLATE,UNTHREAD GUIDING
1213	3-691-577-01	s	GUIDE,SLANT
1214	3-694-275-01	s	FLANGE,UNDER,T2
1215	3-701-437-21	s	WASHER,PLASTIC (2.1X0.5)
1216	3-701-439-21	s	WASHER PLASTIC (3.1X0.5)
1217	3-716-167-01	s	SPRING,COMPRESSION(COIL)
1218	3-727-809-01	s	BOLT,HEXAGON SOCKET
1219	3-729-011-01	s	SPRING, COMPRESSION(COIL)
1220	3-729-013-21	s	SCREW(M1.4X2.5),WASHER HEAD
1221	7-627-551-87	s	SCREW, PRECISION +P1.4X1.8
1222	7-627-850-57	s	SCREW, PRECISION +P1.4X3.5

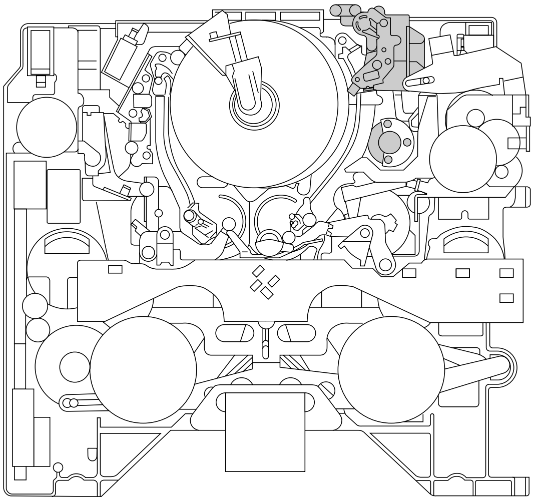
Screws/Washers

No.	Part No.	SP	Description
	7-621-731-08	s	SET-SCREW,HEX 2X2.5(FLAT)
	7-624-101-04	s	E RING (1.2)
	7-624-102-04	s	RING,(E,1.5)

T-side Threading Link


1206
1202
SET SCREW,
HEXAGON 2 × 2.5
(FLAT POINT)
1208
1212
1218
1204
1213
1214
1220
1220
1220
1219
1206
1221
1222
1210
1216
1205
1201
E-1.2
1203
1207
1220
1209
1217
E-1.5
1211
1220
1215

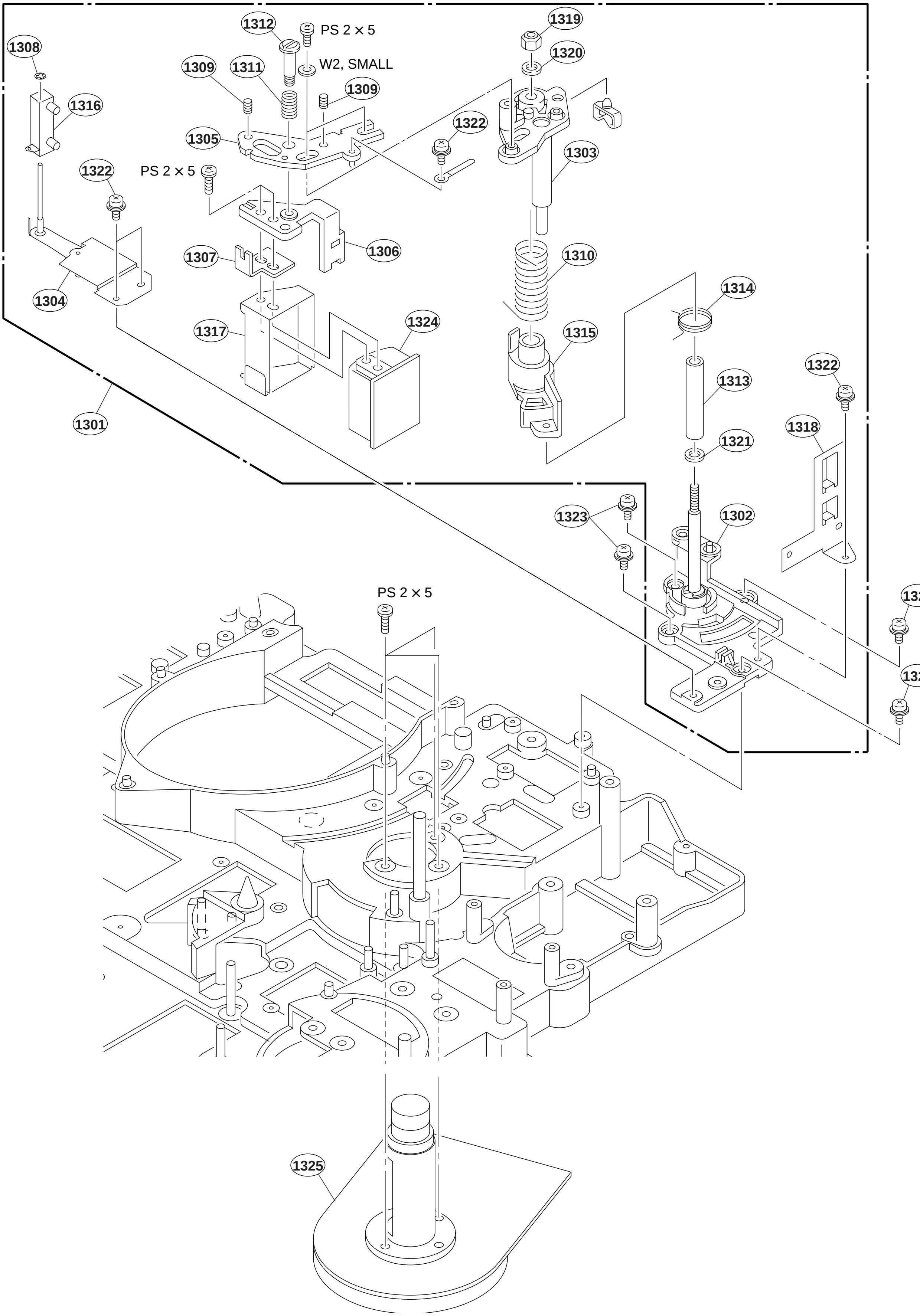
CUE/TC Head and Capstan Motor



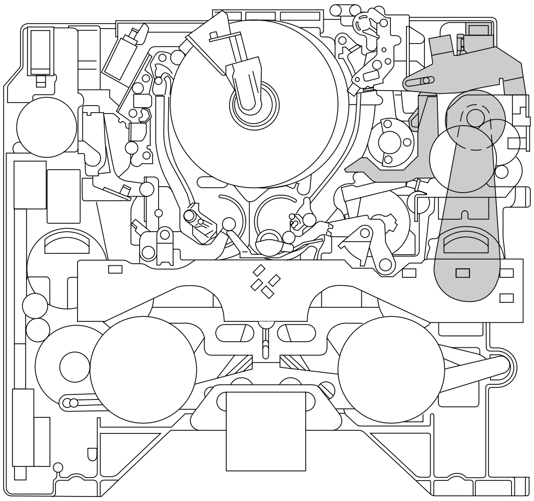
No.	Part No.	SP	Description
1301	A-8269-466-B	o	HEAD ASSY, EXIT
1302	X-3678-095-2	o	PLATE ASSY,BASE CUE/TC
1303	X-3678-112-1	o	PLATE ASSY,CUE/TC ADJUSTMENT
1304	X-3678-434-2	o	ARM ASSY,CLEANER
1305	X-3678-960-1	o	PLATE(A), HEAD ASSY
1306	X-3678-961-3	o	PLATE(B), HEAD ASSY
1307	3-171-570-01	o	PLATE (R), ADJUSTMENT
1308	3-321-393-01	s	WASHER
1309	3-602-961-01	s	SET-SCREW,SLOT2X6 CONE POINT
1310	3-680-005-01	o	SPRING,CUE/TC
1311	3-680-222-01	s	SPRING,COMPRESSION
1312	3-680-223-01	s	SHAFT
1313	3-680-225-01	o	SLEEVE,SHAFT,MAIN,CUE/TC
1314	3-680-233-01	o	SPRING,RTN
1315	3-680-262-02	o	PLATE,SWING,CUE/TC
1316	3-681-778-02	s	BRUSH,CUE
1317	3-689-893-01	o	CASE,SHIELD
1318	3-691-881-01	o	HOLDER,HARNESS
1319	3-698-829-01	s	NUT,NYLON
1320	3-701-437-11	s	WASHER PLASTIC (2.1X0.25)
1321	3-701-439-11	s	WASHER PLASTIC (3.1X0.25)
1322	3-729-013-21	s	SCREW(M1.4X2.5),WASHER HEAD
1323	3-729-013-41	s	SCREW,WASHERHEAD(+P)
1324	8-825-920-02	s	HEAD, AUDIO (EPS244-2103J)
1325	8-835-534-01	s	MOTOR, DC(SCV-0702A/J-N)

Screws/Washers

	7-628-253-15	s	SCREW +PS 2X5
	7-688-001-01	s	WASHER W2 SMALL


PS 2 × 5
W2, SMALL
PS 2 × 5
PS 2 × 5

T-side Reel Motor and Pinch Press Block

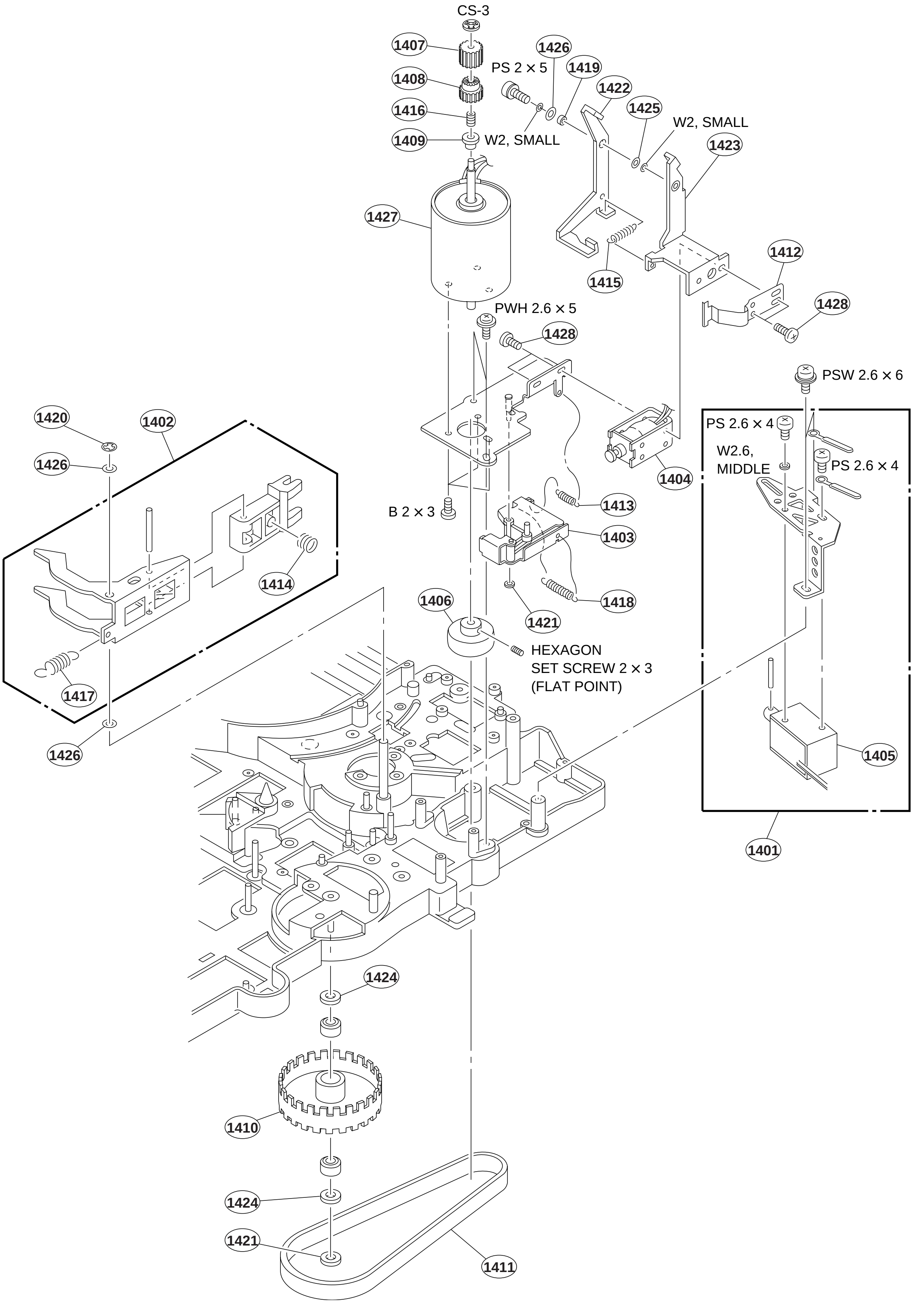


No.	Part No.	SP	Description
1401	A-8278-216-A	o	PLUNGER ASSY,PINCH PRESSING
1402	A-8278-217-B	o	ARM ASSY,PINCH PRESSING
1403	X-3165-731-2	s	ARM ASSY, BRAKE
1404	1-454-334-51	s	SOLENOID,PLUNGER
1405	1-454-383-31	s	SOLENOID, PLUNGER
1406	3-169-370-03	o	PULLEY, MOTOR
1407	3-169-371-02	s	PLATE, CLUTCH
1408	3-169-372-01	s	GEAR,REEL MOTOR DRIVING
1409	3-169-373-01	s	WASHER,SPRING
1410	3-169-503-03	s	PULLEY (B), RELAY
1411	3-172-003-01	s	BELT,DRIVING
1412	3-173-411-01	s	SPRING,BRAKE PLATE
1413	3-307-374-00	s	SPRING,TENSION
1414	3-345-408-01	s	SPRING,COMPRESSION(COIL)
1415	3-371-875-01	s	SPRING (LOCK LEVER),TENSION
1416	3-637-331-00	s	SPRING, COMPRESSION
1417	3-639-371-00	s	SPRING,TENSION
1418	3-642-482-00	s	SPRING,COMPRISSION
1419	3-657-841-61	o	SPACER (DIA 2X1.6)
1420	3-669-596-00	s	WASHER,2.3
1421	3-676-387-00	s	POLY-SLIDER (DIA 1.6)
1422	3-691-564-01	o	LEVER,BRAKE RELEASE
1423	3-691-565-01	o	BASE,BRAKE RELEASE
1424	3-701-437-21	s	WASHER,PLASTIC (2.1X0.5)
1425	3-701-439-01	s	WASHER PLASTIC (3.1X0.13)
1426	3-701-439-11	s	WASHER PLASTIC (3.1X0.25)
1427	8-835-441-01	s	MOTOR(R432276751A)DC 10W UNDER
1428	7-627-553-17	s	SCREW, PRECISION +P2X2

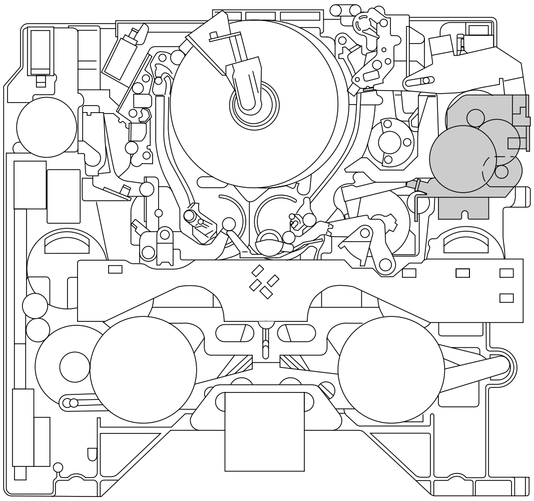
Screws/Washers

No.	Part No.	SP	Description
	7-621-732-08	s	SET-SCREW,HEX 2X3 (FLAT)
	7-621-759-40	s	SCREW +PSW 2.6X6
	7-621-772-08	s	SCREW +B2X3
	7-624-190-11	s	STOP RING TYPE-CS (3MM)
	7-628-253-15	s	SCREW +PS 2X5
	7-628-253-90	s	SCREW +PS 2.6X4
	7-682-902-11	s	SCREW +PWH 2.6X5
	7-688-001-01	s	WASHER W2 SMALL
	7-688-002-11	s	WSHER 2.6

T-side Reel Motor and Pinch Press Block


CS-3
1407
1408
1416
1409
W2, SMALL
1426
PS 2 × 5
1419
1422
1425
W2, SMALL
1423
1427
1415
1412
1428
PWH 2.6 × 5
1428
PSW 2.6 × 6
1420
1402
1426
PS 2.6 × 4
W2.6,
MIDDLE
PS 2.6 × 4
1404
1413
B 2 × 3
1403
1414
1406
1418
1421
HEXAGON
SET SCREW 2 × 3
(FLAT POINT)
1417
1426
1405
1401
1424
1410
1424
1421
1411

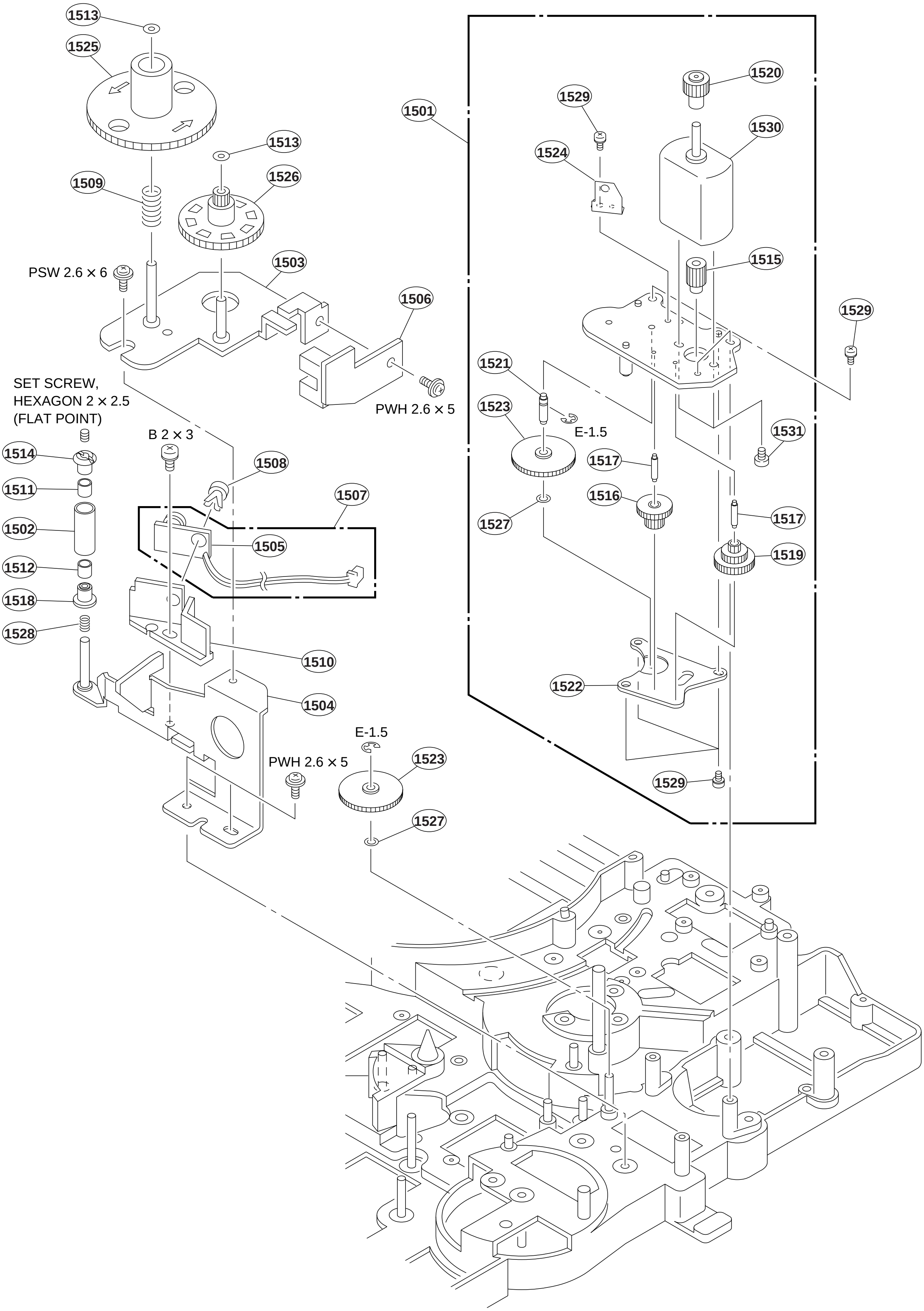
Threading Motor and Gear Train



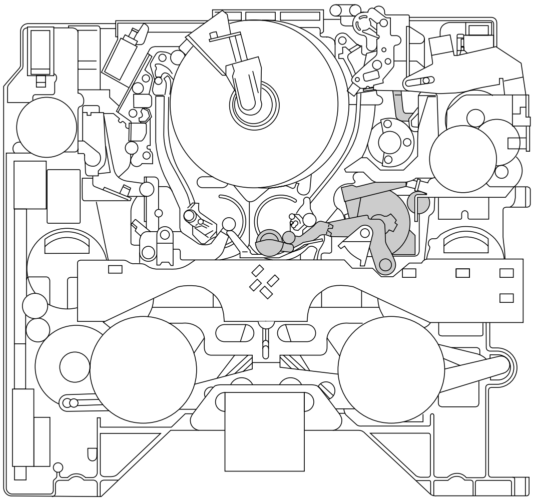
No.	Part No.	SP	Description
1501	A-8269-450-A	o	BLOCK ASSY, GEAR
1502	X-3168-138-1	s	ROLLER ASSY, ONEBARE
1503	X-3678-385-1	o	EJECT ASSY,MANUAL
1504	X-3678-547-1	o	BASE ASSY,T4 GUIDE
1505	1-543-316-21	s	HEAD,SENSING (SMALL TYPE)
1506	1-638-705-12	o	PRINTED CIRCUIT BOARD, DET-15
1507	1-948-409-11	o	HARNESS (MB44-TTOPA)
1508	2-279-715-01	s	RIVET,NYLON
1509	3-561-540-01	s	SPRING,COMPRESSION
1510	3-602-508-02	o	HOLDER,TOP SENSOR
1511	3-602-510-01	s	ROLLER T4(A)
1512	3-602-511-01	s	ROLLER T4(B)
1513	3-669-465-01	s	WASHER(1.5), STOPPER
1514	3-679-729-02	s	FLANGE,UPPER
1515	3-679-748-01	s	PINION
1516	3-679-750-01	o	GEAR(B)
1517	3-679-799-01	o	SHAFT,GEAR
1518	3-680-230-01	s	FLANGE, LOWER
1519	3-680-263-01	o	GEAR(C)
1520	3-680-988-01	s	PINION B (GEAR)
1521	3-691-348-01	o	GEAR SHAFT(A)
1522	3-691-349-02	o	GEAR BLOCK PLATE(B)
1523	3-691-352-03	s	GEAR,ST DRIVING
1524	3-691-353-01	o	LIMITTER PLATE
1525	3-691-371-01	o	GEAR,MIDWAY
1526	3-691-372-01	o	DRIVING GEAR,MANUAL
1527	3-701-437-21	s	WASHER,PLASTIC (2.1X0.5)
1528	3-729-011-01	s	SPRING, COMPRESSION(COIL)
1529	3-729-013-21	s	SCREW(M1.4X2.5),WASHER HEAD
1530	8-835-440-01	s	MOTOR(DN20-Q7Z1B) DC 10W UNDER
1531	7-627-552-28	s	SCREW, PRECISION +P1.7X2

Screws/Washers

	7-621-731-08	s	SET-SCREW,HEX 2X2.5(FLAT)
	7-621-759-40	s	SCREW +PSW 2.6X6
	7-621-772-08	s	SCREW +B2X3
	7-624-102-04	s	RING,(E,1.5)
	7-682-902-11	s	SCREW +PWH 2.6X5


1513
1525
1513
1526
1509
1503
PSW 2.6 × 6
1506
PWH 2.6 × 5
SET SCREW,
HEXAGON 2 × 2.5
(FLAT POINT)
B 2 × 3
1514
1508
1511
1507
1502
1505
1512
1518
1528
1510
1504
E-1.5
PWH 2.6 × 5
1523
1527
1501
1529
1520
1524
1530
1515
1529
1521
1523
E-1.5
1531
1517
1516
1527
1517
1519
1522
1529

CUE Link and Pinch Arm

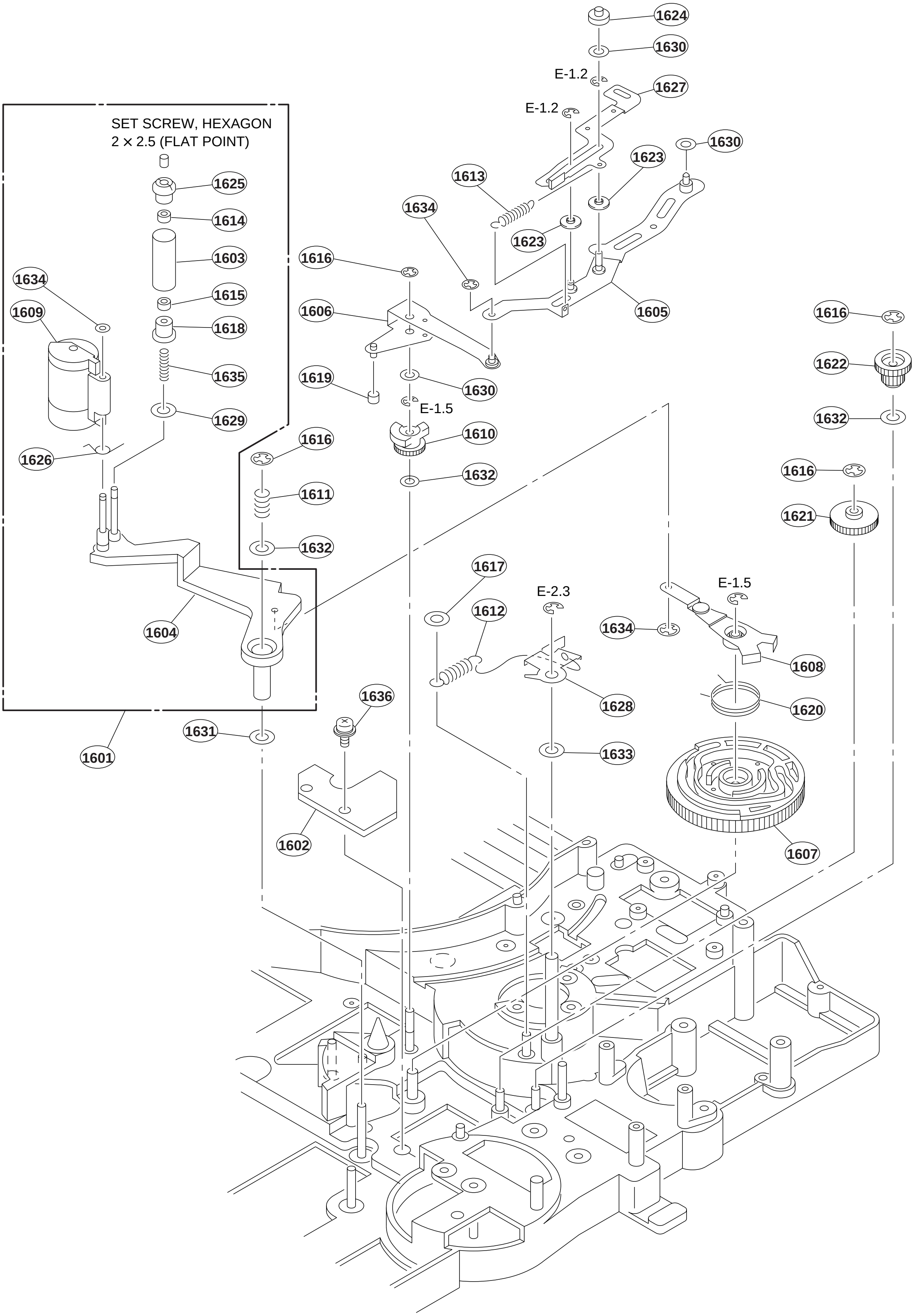


No.	Part No.	SP	Description
1601	A-8279-109-A	o	ARM ASSY,T
1602	A-8321-358-A	o	MOUNTED CIRCUIT BOARD, DET-36
1603	X-3168-138-1	s	ROLLER ASSY, ONEBARE
1604	X-3605-481-1	o	SUB ASSY,T ARM
1605	X-3678-382-1	o	LINK ASSY,CUE DRIVING
1606	X-3678-383-2	o	CUE DRIVING ARM ASSY (A)
1607	X-3678-384-2	o	GEAR ASSY,CAM
1608	X-3678-423-3	o	LINK ASSY,T
1609	X-3678-425-5	s	ARM ASSY,PINCH ROLLER
1610	X-3678-461-1	s	GEAR ASSY,INTERMITTENT
1611	2-618-901-00	o	SPRING, COMPRESSION
1612	3-371-629-01	s	SPRING (LOCK LEVER),TENSION
1613	3-535-369-99	s	SPRING, TENSION
1614	3-602-510-01	s	ROLLER T4(A)
1615	3-602-511-01	s	ROLLER T4(B)
1616	3-669-465-01	s	WASHER(1.5), STOPPER
1617	3-672-250-01	s	RING(M2.6), O
1618	3-680-230-01	s	FLANGE, LOWER
1619	3-683-340-01	o	ROLLER (A)
1620	3-689-899-04	s	SPRING,T LIMITTER
1621	3-691-351-02	s	GEAR, MIDWAY
1622	3-691-355-02	s	GEAR,JOINT
1623	3-691-356-01	o	C SLEEVE
1624	3-691-357-01	s	SLEEVE (C)
1625	3-691-382-02	s	FLANGE,UPPER
1626	3-691-550-01	s	SPRING,PINCH RETURN
1627	3-692-093-01	o	LEVER,CUE CLEANER
1628	3-692-097-03	o	LEVER STOPPER
1629	3-701-436-21	s	WASHER POLY (1.6X0.5)
1630	3-701-437-01	s	WASHER PLASTIC (2.1X0.14)
1631	3-701-437-11	s	WASHER PLASTIC (2.1X0.25)
1632	3-701-437-21	s	WASHER,PLASTIC (2.1X0.5)
1633	3-701-439-11	s	WASHER PLASTIC (3.1X0.25)
1634	3-726-829-01	s	WASHER,STOPPER
1635	3-729-011-01	s	SPRING, COMPRESSION(COIL)
1636	3-729-013-21	s	SCREW(M1.4X2.5),WASHER HEAD

Screws/Washers

No.	Part No.	SP	Description
	7-621-731-08	s	SET-SCREW,HEX 2X2.5(FLAT)
	7-624-101-04	s	E RING (1.2)
	7-624-102-04	s	RING,(E,1.5)
	7-624-105-04	s	RING,E2.3

http://getMANUAL.com


SET SCREW, HEXAGON
2 × 2.5 (FLAT POINT)
1601
1602
1603
1604
1605
1606
1607
1608
1609
1610
1611
1612
1613
1614
1615
1616
1617
1618
1619
1620
1621
1622
1623
1624
1625
1626
1627
1628
1629
1630
1631
1632
1633
1634
1635
1636
E-1.2
E-1.5
E-2.3

2-3. Electrical Parts List

ADA-44 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-930-A	o	MOUNTED CIRCUIT BOARD, ADA-44
C1	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C2	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C3	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C4	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C5	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C6	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C7	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C8	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C9	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C10	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C11	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C12	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C13	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C14	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C15	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C16	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C17	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C18	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C19	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C20	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C21	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C22	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C23	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C24	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C29	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C30	1-127-951-21	s	CAPACITOR FILM 0.015MF/16V
C31	1-127-951-21	s	CAPACITOR FILM 0.015MF/16V
C32	1-127-951-21	s	CAPACITOR FILM 0.015MF/16V
C33	1-127-951-21	s	CAPACITOR FILM 0.015MF/16V
C34	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C35	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C36	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C37	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C38	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C39	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C40	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C41	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C42	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C43	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C44	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C45	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C46	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C47	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C48	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C49	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C50	1-127-949-21	s	CAPACITOR FILM 0.0068MF/16V
C51	1-127-949-21	s	CAPACITOR FILM 0.0068MF/16V
C52	1-127-949-21	s	CAPACITOR FILM 0.0068MF/16V
C53	1-127-949-21	s	CAPACITOR FILM 0.0068MF/16V
C54	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C55	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C56	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C57	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C58	1-135-070-00	s	CAPACITOR TANTALUM 0.1MF/35V
C59	1-135-070-00	s	CAPACITOR TANTALUM 0.1MF/35V
C60	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V
C61	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V

(ADA-44 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C62	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V
C63	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V
C64	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C65	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C66	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C67	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C68	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C69	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C70	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V
C71	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V
C72	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C73	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C74	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C75	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C76	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C201	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C202	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C203	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C204	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C205	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C206	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C207	1-126-394-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C208	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V
C209	1-104-913-11	s	CAPACITOR,CHIP TANTAL 10MF/16V
C210	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C211	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C212	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C213	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C214	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C215	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C216	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C217	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C218	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C219	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C220	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C221	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C222	1-127-967-21	s	CAPACITOR,FILM 0.0022MF 50V
C223	1-127-967-21	s	CAPACITOR,FILM 0.0022MF 50V
C224	1-127-967-21	s	CAPACITOR,FILM 0.0022MF 50V
C225	1-127-967-21	s	CAPACITOR,FILM 0.0022MF 50V
C226	1-127-965-21	s	CAPACITOR, CHIP FILM 0.001MF
C227	1-127-965-21	s	CAPACITOR, CHIP FILM 0.001MF
C228	1-127-965-21	s	CAPACITOR, CHIP FILM 0.001MF
C229	1-127-965-21	s	CAPACITOR, CHIP FILM 0.001MF
C230	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C231	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C232	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C233	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C234	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C235	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C236	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C237	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C238	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C239	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C240	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C241	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C242	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C243	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C244	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V

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Ref. No. or Q'ty	Part No.	SP	Description
C245	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C246	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C247	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C248	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C249	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C250	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C251	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C252	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C253	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C254	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C255	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C260	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C261	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C262	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C263	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C264	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C265	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C351	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C352	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C353	1-135-216-11	s	CAPACITOR TANTATUM 10MF/10V
C354	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C355	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C356	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C357	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C358	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C359	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C360	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C361	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C362	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C363	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C364	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C365	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C366	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C367	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C368	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C369	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C370	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C371	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C372	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C373	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C374	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C375	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C376	1-104-608-11	s	CAPACITOR, ELECT 33MF/6.3V
C377	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C378	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C379	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C380	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C381	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C382	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C383	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C384	1-104-608-11	s	CAPACITOR, ELECT 33MF/6.3V
C385	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C386	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C387	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C388	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C389	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C390	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
CN551	1-565-884-11	o	PIN, CONNECTOR (PC BOARD) 12P

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Ref. No. or Q'ty	Part No.	SP	Description
CN552	1-568-521-11	o	CONNECTOR PIN 13P
CN553	1-565-882-11	o	PIN,CONNECTOR 10P
CN554	1-565-877-11	s	PIN,CONNECTOR(PC BOARD)5P
CN555	1-565-882-11	o	PIN,CONNECTOR 10P
CN556	1-565-884-11	o	PIN, CONNECTOR (PC BOARD) 12P
CN557	1-566-758-11	o	PIN,CONNECTOR 3P
CN558	1-569-761-11	s	CONNECTOR, BOARD TO BOARD 20P
CN559	1-565-878-11	s	PIN, CONNECTOR (PC BOARD) 6P
D1	8-719-989-08	s	DIODE RB717F
D2	8-719-989-08	s	DIODE RB717F
D3	8-719-989-08	s	DIODE RB717F
D4	8-719-989-08	s	DIODE RB717F
D5	8-719-988-82	s	DIODE RB715F
D6	8-719-988-82	s	DIODE RB715F
D7	8-719-988-82	s	DIODE RB715F
D8	8-719-988-82	s	DIODE RB715F
D9	8-719-941-86	s	DIODE DAN202U
D201	8-719-941-86	s	DIODE DAN202U
D202	8-719-941-86	s	DIODE DAN202U
D351	8-759-710-88	s	IC NJM431U
D354	8-719-157-23	s	DIODE RD4.7M-B
D355	8-719-157-23	s	DIODE RD4.7M-B
D356	8-719-157-23	s	DIODE RD4.7M-B
D357	8-719-157-36	s	DIODE RD6.8M-B
D358	8-719-157-23	s	DIODE RD4.7M-B
D359	8-719-157-36	s	DIODE RD6.8M-B
D360	8-719-157-23	s	DIODE RD4.7M-B
D361	8-719-157-36	s	DIODE RD6.8M-B
D362	8-719-157-23	s	DIODE RD4.7M-B
E1	1-535-881-21	o	TERMINAL, TP (AUTO INSERTION)
E2	1-535-881-21	o	TERMINAL, TP (AUTO INSERTION)
IC1	8-759-711-85	s	IC NJM4580E-D
IC2	8-759-711-85	s	IC NJM4580E-D
IC3	8-759-711-85	s	IC NJM4580E-D
IC4	8-759-711-85	s	IC NJM4580E-D
IC5	8-759-711-85	s	IC NJM4580E-D
IC6	8-759-711-85	s	IC NJM4580E-D
IC7	8-759-711-85	s	IC NJM4580E-D
IC8	8-759-711-85	s	IC NJM4580E-D
IC9	8-759-336-17	s	IC AK5390-VS
IC10	8-759-336-17	s	IC AK5390-VS
IC11	8-759-523-94	s	IC TC74VHC32FT(EL)
IC12	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC201	8-759-523-95	s	IC TC74VHC74FT(EL)
IC202	8-759-524-22	s	IC TC74VHC175FT(EL)
IC203	8-759-593-55	s	IC PCM69U-J/2K
IC204	8-759-593-55	s	IC PCM69U-J/2K
IC205	8-759-711-85	s	IC NJM4580E-D
IC206	8-759-711-85	s	IC NJM4580E-D
IC207	8-759-711-85	s	IC NJM4580E-D
IC208	8-759-711-85	s	IC NJM4580E-D
IC209	8-759-711-85	s	IC NJM4580E-D
IC210	8-759-711-85	s	IC NJM4580E-D
IC310	8-759-711-58	s	IC NJM78L05UA
IC351	8-759-701-01	s	IC NJM2904M
IC352	8-759-702-02	s	IC NJM062M
IC353	8-759-702-02	s	IC NJM062M

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Ref. No. or Q'ty	Part No.	SP	Description
IC354	8-759-523-94	s	IC TC74VHC32FT(EL)
IC355	8-759-523-96	s	IC TC74VHC86FT (EL)
IC356	8-759-009-07	s	IC MC14053BF
IC357	8-759-009-06	s	IC MC14052BF
IC358	8-759-009-06	s	IC MC14052BF
IC359	8-759-702-02	s	IC NJM062M
IC360	8-759-702-02	s	IC NJM062M
IC361	8-759-702-02	s	IC NJM062M
Q1	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q2	8-729-012-35	s	FET 2SK711-BL
Q3	8-729-012-35	s	FET 2SK711-BL
Q4	8-729-012-35	s	FET 2SK711-BL
Q5	8-729-012-35	s	FET 2SK711-BL
Q201	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q202	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q203	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q204	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q205	8-729-012-35	s	FET 2SK711-BL
Q206	8-729-012-35	s	FET 2SK711-BL
Q207	8-729-012-35	s	FET 2SK711-BL
Q208	8-729-012-35	s	FET 2SK711-BL
Q351	8-729-029-06	s	TRANSISTOR DTC124EUA-T106
Q352	8-729-029-06	s	TRANSISTOR DTC124EUA-T106
Q353	8-729-028-83	s	TRANSISTOR DTA124EUA-T106
Q354	8-729-028-83	s	TRANSISTOR DTA124EUA-T106
Q355	8-729-028-83	s	TRANSISTOR DTA124EUA-T106
Q356	8-729-028-83	s	TRANSISTOR DTA124EUA-T106
Q357	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q358	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q359	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q360	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q361	8-729-807-51	s	TRANSISTOR 2SD1623-S
Q362	8-729-101-07	s	TRANSISTOR 2SB798
Q364	8-729-807-86	s	TRANSISTOR 2SB1295-UL5
Q365	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q366	8-729-807-86	s	TRANSISTOR 2SB1295-UL5
Q367	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q368	8-729-101-07	s	TRANSISTOR 2SB798
Q369	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
R5	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R6	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R7	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R8	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R9	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R10	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R11	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R12	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R13	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R14	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R15	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R16	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R17	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R18	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R19	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R20	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R21	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R22	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R23	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)

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Ref. No. or Q'ty	Part No.	SP	Description
R24	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R25	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R26	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R27	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R28	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R32	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R33	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R34	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R35	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R36	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R37	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R38	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R39	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R44	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R45	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R46	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R47	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R48	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R49	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R50	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R51	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R56	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R57	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R58	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R59	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R64	1-218-715-11	s	RESISTOR,METAL 9.1K 1/16W
R65	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R66	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R67	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R68	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R69	1-218-715-11	s	RESISTOR,METAL 9.1K 1/16W
R70	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R71	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R72	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R73	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R74	1-218-715-11	s	RESISTOR,METAL 9.1K 1/16W
R75	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R76	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R77	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R78	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R79	1-218-715-11	s	RESISTOR,METAL 9.1K 1/16W
R80	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R81	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R82	1-218-746-11	s	RESISTOR,METAL 180K 1/16W
R83	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R88	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R89	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R90	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R91	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R92	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R93	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R94	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R95	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R96	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R97	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R98	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R99	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R100	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R101	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608

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Ref. No. or Q'ty	Part No.	SP	Description
R102	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R103	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R104	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R105	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R106	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R107	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R108	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R109	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R110	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R111	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R112	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R113	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R114	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R115	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R116	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R117	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R118	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R119	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R120	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R121	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R122	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R123	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R124	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R125	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R126	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R127	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R128	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R129	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R130	1-218-734-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R131	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R132	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R134	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R136	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R138	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R140	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R141	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R142	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R143	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R144	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R145	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R146	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R147	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R148	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R149	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R150	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R151	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R153	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R155	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R157	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R158	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R159	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R201	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R202	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R203	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R204	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R205	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R206	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R207	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R208	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R209	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R210	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R211	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R212	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R213	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R214	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R215	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R216	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R217	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R218	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R219	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R220	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R221	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R222	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R223	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R224	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R225	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R226	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R227	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R228	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R229	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R230	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R231	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R232	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R233	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R234	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R235	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R236	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R237	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R238	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R239	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R240	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R241	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R242	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R243	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R244	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R245	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R246	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R247	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R248	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R249	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R250	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R251	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R252	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R253	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R254	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R255	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R256	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R257	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R258	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R259	1-216-666-11	s	RESISTOR,CHIP 4.3K 1/10W(2012)
R260	1-216-666-11	s	RESISTOR,CHIP 4.3K 1/10W(2012)
R261	1-216-666-11	s	RESISTOR,CHIP 4.3K 1/10W(2012)
R262	1-216-666-11	s	RESISTOR,CHIP 4.3K 1/10W(2012)
R263	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R264	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R265	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R266	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R267	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)

Ref. No. or Q'ty	Part No.	SP	Description
R268	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R269	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R270	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R271	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R272	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R273	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R274	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R275	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R276	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R277	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R278	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W 1608
R279	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R280	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R281	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R282	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R283	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R284	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R285	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R286	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R287	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R288	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R289	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R290	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R291	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R292	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R293	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R294	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R295	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R296	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R297	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R298	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R299	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R300	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R301	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R302	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R303	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R304	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R305	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R306	1-218-727-11	s	RESISTOR,CHIP 30K 1/16W(1608)
R307	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R308	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R309	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R310	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R311	1-218-727-11	s	RESISTOR,CHIP 30K 1/16W(1608)
R312	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R313	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R314	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R315	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R316	1-218-727-11	s	RESISTOR,CHIP 30K 1/16W(1608)
R317	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R318	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R319	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R320	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R321	1-218-727-11	s	RESISTOR,CHIP 30K 1/16W(1608)
R322	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R323	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R324	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R325	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R326	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R327	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R328	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R329	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R330	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R331	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R332	1-216-313-00	s	RESISTOR,CHIP 8.2 1/10W(2012)
R333	1-216-313-00	s	RESISTOR,CHIP 8.2 1/10W(2012)
R334	1-216-313-00	s	RESISTOR,CHIP 8.2 1/10W(2012)
R335	1-216-313-00	s	RESISTOR,CHIP 8.2 1/10W(2012)
R336	1-216-313-00	s	RESISTOR,CHIP 8.2 1/10W(2012)
R337	1-216-313-00	s	RESISTOR,CHIP 8.2 1/10W(2012)
R351	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R352	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R353	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R354	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R355	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R356	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R357	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R358	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R359	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R360	1-218-706-11	s	RESISTOR,CHIP 3.9K 1/16W(1608)
R361	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R362	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R363	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R365	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R366	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R367	1-218-726-11	s	RESISTOR CHIP 27K 1/16W (1608)
R368	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R369	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R370	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R371	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R372	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R373	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R374	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R375	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R376	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R377	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R378	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R379	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R380	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R381	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R382	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R383	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R384	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R385	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R386	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R387	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R388	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R389	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R390	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R391	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R392	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R393	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R394	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R395	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R396	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R397	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R398	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R399	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)

Ref. No. or Q'ty	Part No.	SP	Description
R400	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R401	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R402	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R403	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R404	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R405	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R406	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R407	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R408	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R409	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R410	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R411	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R412	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R413	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R414	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R415	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R416	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R417	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R418	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R419	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R420	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R421	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R422	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R423	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R424	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R425	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R426	1-218-725-11	s	RESISTOR,CHIP 24K 1/16W(1608)
R427	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R428	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R429	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R430	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R431	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R432	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R433	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R434	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R435	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R436	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R437	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R438	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R440	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R441	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R442	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R443	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R444	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R445	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R447	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R448	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R449	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R450	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R451	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R452	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R453	1-215-469-00	s	RESISTOR,METAL FILM 100K 1/4W
RV1	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV2	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV3	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV4	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV5	1-237-039-11	s	RESISTOR,ADJ,CERMET 100K
RV6	1-237-039-11	s	RESISTOR,ADJ,CERMET 100K
RV7	1-237-039-11	s	RESISTOR,ADJ,CERMET 100K
RV8	1-237-039-11	s	RESISTOR,ADJ,CERMET 100K
RV40	1-241-522-11	s	RESISTOR VAR, CARBON 10K
RV50	1-241-522-11	s	RESISTOR VAR, CARBON 10K
RV60	1-241-522-11	s	RESISTOR VAR, CARBON 10K
RV70	1-241-522-11	s	RESISTOR VAR, CARBON 10K
RV201	1-237-038-11	s	RESISTOR,ADJ,CERMET 50K
RV202	1-237-038-11	s	RESISTOR,ADJ,CERMET 50K
RV203	1-237-038-11	s	RESISTOR,ADJ,CERMET 50K
RV204	1-237-038-11	s	RESISTOR,ADJ,CERMET 50K
RV205	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV206	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV207	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV208	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
S1	1-554-355-00	s	SWITCH, TOGGLE

CC-82 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-355-A	o	MOUNTED CIRCUIT BOARD, CC-82
C1	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C2	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C3	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C4	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C6	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C8	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C9	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C10	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C11	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C12	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C13	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C14	1-113-986-11	s	CAPACITOR,TANTALUM 2.2MF/25V
C15	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C16	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C17	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C18	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C19	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C20	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C21	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C22	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C23	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C24	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C25	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C26	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C27	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C28	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C29	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C30	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C31	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C32	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C33	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C34	1-126-390-11	s	CAPACITOR ELECT 22MF/6.3V(105)
C35	1-126-390-11	s	CAPACITOR ELECT 22MF/6.3V(105)
CN451	1-565-876-11	o	PIN,CONNECTOR 4P
CN452	1-566-765-11	o	PIN,CONNECTOR 10P
CN453	1-566-767-11	o	PIN,CONNECTOR (PC BOARD) 12P
CN454	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN456	1-565-880-11	s	PIN,CONNECTOR 8P
CN457	1-565-884-11	o	PIN, CONNECTOR (PC BOARD) 12P
D1	8-719-941-09	s	DIODE DAP202U
D2	8-719-941-04	s	DIODE SB007-03CP
D3	8-719-941-04	s	DIODE SB007-03CP
D4	8-719-941-09	s	DIODE DAP202U
D5	8-719-037-95	s	DIODE DA227TL
FB1	1-543-309-21	s	BEAD,FERRITE
FB2	1-543-309-21	s	BEAD,FERRITE
IC1	8-759-054-61	s	IC CLC505AJE
IC2	8-759-054-61	s	IC CLC505AJE
IC3	8-759-054-61	s	IC CLC505AJE
IC4	8-759-710-82	s	IC NJM2406F
IC5	8-752-061-02	s	IC CXA1450M
IC6	8-759-054-61	s	IC CLC505AJE
IC7	8-759-485-82	s	IC MC34182DR2
IC8	8-759-054-61	s	IC CLC505AJE
IC9	8-759-485-82	s	IC MC34182DR2

(CC-82 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q2	8-729-117-32	s	TRANSISTOR 2SC4177
Q3	8-729-117-32	s	TRANSISTOR 2SC4177
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
R2	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R3	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R4	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R9	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R10	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R11	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R12	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R13	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R14	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R15	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R16	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R17	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R18	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R19	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R20	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R21	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R25	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R29	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R30	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R31	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R32	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R33	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R34	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R35	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R39	1-218-712-11	s	RESISTOR,METAL 6.8K 1/16W
R40	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R41	1-216-857-11	s	RESISTOR, CHIP 1.0M 1/16W 1608
R42	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R43	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R44	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R45	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R46	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R47	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R48	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R49	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R51	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R52	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R53	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R54	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R57	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R58	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R59	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R60	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R61	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R62	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R63	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R64	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R66	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R67	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R68	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R69	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R70	1-218-671-11	s	RESISTOR,CHIP 130 1/16W (1608)
R71	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R72	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R74	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R75	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

(CC-82 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R76	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R77	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R78	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R79	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R80	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R81	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R82	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R83	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
RV1	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV2	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV3	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV4	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
S1	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S2	1-570-863-11	s	SWITCH,SLIDE (1-1-2)

CN-1752 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-673-090-11	o	PRINTED WIRING BOARD, CN-1752
CN1	1-566-760-11	s	PIN,CONNECTOR (PC BOARD) 5P

CN-1795 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-673-091-11	o	PRINTED WIRING BOARD, CN-1795
CN1	1-566-763-11	o	PIN,CONNECTOR (PC BOARD) 8P
CN2	1-766-696-11	o	CONNECTOR, ROUND TYPE 8P

CN-1926 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-674-184-11	o	PRINTED CIRCUIT BOARD, CN-1926
CN1	1-764-079-21	s	PIN, CONNECTOR (PC BOARD) 4P
CN2	1-770-359-11	s	PIN, CONNECTOR (PC BOARD) 2P
CN3	1-770-359-11	s	PIN, CONNECTOR (PC BOARD) 2P

CP-337 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-356-A	o	MOUNTED CIRCUIT BOARD, CP-337
C102	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C103	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C104	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C105	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C106	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C112	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C202	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C203	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C204	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C205	1-135-213-21	s	CAPACITOR TANTALUM 3.3MF/25V
C206	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C207	1-135-213-21	s	CAPACITOR TANTALUM 3.3MF/25V
C208	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C209	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C210	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C211	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C212	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C301	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C302	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C303	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C304	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C305	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C312	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C321	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C322	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C401	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C402	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C403	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C404	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C405	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C412	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C421	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C422	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C541	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C542	1-163-989-11	s	CAPACITOR,CHIP CERAMIC 0.033M
C551	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C552	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C553	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C554	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C555	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C556	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C557	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C558	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C559	1-165-176-11	s	CAPACITOR,CERAMIC 47000PF/16V
C560	1-128-397-21	s	CAPACITOR ELECT 100MF/16V CHIP
C561	1-126-398-11	s	CAPACITOR ELECT 4.7MF/35V(CHIP
C562	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C563	1-163-809-11	s	CAPACITOR,CHIP CERAMIC 0.047MF
C564	1-128-397-21	s	CAPACITOR ELECT 100MF/16V CHIP
C565	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C566	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C567	1-135-211-11	s	CAPACITOR TANTAL 6.8MF/6.3V
C568	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C569	1-126-402-11	s	CAPACITOR, ELECT 2.2MF/50V
C570	1-126-402-11	s	CAPACITOR, ELECT 2.2MF/50V
C602	1-128-393-11	s	CAPACITOR,ELECT 100MF/10V
C603	1-128-393-11	s	CAPACITOR,ELECT 100MF/10V

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(CP-337 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C604	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C605	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C606	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C607	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C611	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C612	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C613	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C614	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C615	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C616	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C704	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C705	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C706	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C707	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C711	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C712	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C715	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C716	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C802	1-128-393-11	s	CAPACITOR,ELECT 100MF/10V
C803	1-128-393-11	s	CAPACITOR,ELECT 100MF/10V
C804	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C805	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C806	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C807	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C811	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C812	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C813	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C814	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C816	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C817	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C904	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C905	1-128-394-11	s	0APACITOR,ELECT 220MF/10V
C906	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C907	1-162-995-11	s	CAPACITOR,CERAMIC 0.022MF/50V
C911	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C912	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C916	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C917	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C1005	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1024	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C1025	1-126-391-11	s	CAPACITOR ELECT 47MF/6.3V(105)
C1027	1-126-391-11	s	CAPACITOR ELECT 47MF/6.3V(105)
C1029	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C1031	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C1033	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C1035	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C1038	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1040	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1042	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1044	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1045	1-126-403-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C1046	1-126-390-11	s	CAPACITOR ELECT 22MF/6.3V(105)
C1047	1-126-390-11	s	CAPACITOR ELECT 22MF/6.3V(105)
C1048	1-126-395-11	s	CAPACITOR ELECT 22MF/16V(CHIP)
C1049	1-126-395-11	s	CAPACITOR ELECT 22MF/16V(CHIP)
C2001	1-126-398-11	s	CAPACITOR ELECT 4.7MF/35V(CHIP
C2002	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C2003	1-126-398-11	s	CAPACITOR ELECT 4.7MF/35V(CHIP
C2004	1-126-941-11	s	CAPACITOR,ELECT 470MF/25V

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Ref. No. or Q'ty	Part No.	SP	Description
C2005	1-126-394-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C5001	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C5002	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C5003	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C5004	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C6000	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C6001	1-135-213-21	s	CAPACITOR TANTALUM 3.3MF/25V
C6002	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C6003	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C6004	1-135-213-21	s	CAPACITOR TANTALUM 3.3MF/25V
CN401	1-566-767-11	o	PIN,CONNECTOR (PC BOARD) 12P
CN402	1-565-879-11	s	PIN,CONNECTOR 7P
CN403	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN404	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN405	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN406	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN407	1-566-761-11	o	PIN,CONNECTOR (PC BOARD) 6P
CN408	1-566-758-11	o	PIN,CONNECTOR 3P
CN409	1-580-716-11	o	PIN, CONNECTOR (PC BOARD) 13P
CN410	1-566-767-11	o	PIN,CONNECTOR (PC BOARD) 12P
CN411	1-566-765-11	o	PIN,CONNECTOR 10P
CN412	1-580-716-11	o	PIN, CONNECTOR (PC BOARD) 13P
CN414	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN415	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN416	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN417	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN421	1-566-759-11	o	PIN,CONNECTOR 4P
D101	8-719-941-23	s	DIODE DA204U
D102	8-719-941-23	s	DIODE DA204U
D201	8-719-941-23	s	DIODE DA204U
D202	8-719-941-23	s	DIODE DA204U
D301	8-719-941-23	s	DIODE DA204U
D302	8-719-941-23	s	DIODE DA204U
D401	8-719-941-23	s	DIODE DA204U
D402	8-719-941-23	s	DIODE DA204U
D601	8-719-941-86	s	DIODE DAN202U
D602	8-719-941-86	s	DIODE DAN202U
D801	8-719-941-86	s	DIODE DAN202U
D802	8-719-941-86	s	DIODE DAN202U
D1004	8-719-157-36	s	DIODE RD6.8M-B
D1005	8-719-157-23	s	DIODE RD4.7M-B
D1006	8-719-157-36	s	DIODE RD6.8M-B
D1007	8-719-157-23	s	DIODE RD4.7M-B
D1008	8-719-157-23	s	DIODE RD4.7M-B
D1009	8-719-157-36	s	DIODE RD6.8M-B
D1010	8-719-157-23	s	DIODE RD4.7M-B
D1011	8-719-157-23	s	DIODE RD4.7M-B
D1012	8-719-157-36	s	DIODE RD6.8M-B
D1013	8-719-157-23	s	DIODE RD4.7M-B
D1014	8-719-157-23	s	DIODE RD4.7M-B
D1015	8-719-157-36	s	DIODE RD6.8M-B
D1016	8-719-157-23	s	DIODE RD4.7M-B
IC101	8-759-711-85	s	IC NJM4580E-D
IC201	8-759-711-85	s	IC NJM4580E-D
IC202	8-759-711-85	s	IC NJM4580E-D
IC301	8-759-711-85	s	IC NJM4580E-D
IC401	8-759-711-85	s	IC NJM4580E-D
IC551	8-759-702-03	s	IC NJM072BM

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Ref. No. or Q'ty	Part No.	SP	Description
IC552	8-759-701-36	s	IC NJM3403AM
IC553	8-759-512-09	s	IC NJM386BM
IC554	8-759-512-09	s	IC NJM386BM
IC601	8-759-700-96	s	IC NJM5534M
IC602	8-759-711-85	s	IC NJM4580E-D
IC603	8-759-700-96	s	IC NJM5534M
IC701	8-759-700-96	s	IC NJM5534M
IC703	8-759-700-96	s	IC NJM5534M
IC801	8-759-700-96	s	IC NJM5534M
IC802	8-759-711-85	s	IC NJM4580E-D
IC803	8-759-700-96	s	IC NJM5534M
IC901	8-759-700-96	s	IC NJM5534M
IC903	8-759-700-96	s	IC NJM5534M
IC1001	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC1004	8-759-524-20	s	IC TC74VHC165FT (EL)
IC1007	8-759-234-20	s	IC TC7S08F
IC2001	8-759-486-99	s	IC S-81250SGUP-DQD-T1
IC6000	8-759-711-85	s	IC NJM4580E-D
L101	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L102	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L201	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L202	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L203	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L204	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L301	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L302	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L401	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L402	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L6000	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
L6001	1-410-380-31	s	INDUCTOR,CHIP 8.2UH (3225)
Q601	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q602	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q701	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q702	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q801	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q802	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q901	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q902	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q1003	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q1005	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q1006	8-729-800-71	s	TRANSISTOR 2SB815B7-TB .
Q1007	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q1008	8-729-800-71	s	TRANSISTOR 2SB815B7-TB .
Q1009	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q1010	8-729-800-71	s	TRANSISTOR 2SB815B7-TB .
Q1011	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q1012	8-729-800-71	s	TRANSISTOR 2SB815B7-TB .
Q1013	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q1014	8-729-800-71	s	TRANSISTOR 2SB815B7-TB .
Q1015	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q1016	8-729-117-32	s	TRANSISTOR 2SC4177
Q1017	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q1018	8-729-800-71	s	TRANSISTOR 2SB815B7-TB .
Q1019	8-729-809-47	s	TRANSISTOR 2SD1935-CT7
Q1020	8-729-800-71	s	TRANSISTOR 2SB815B7-TB .
Q2001	8-729-807-51	s	TRANSISTOR 2SD1623-S
Q2002	8-729-029-06	s	TRANSISTOR DTC124EUA-T106
Q2003	8-729-028-83	s	TRANSISTOR DTA124EUA-T106

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Ref. No. or Q'ty	Part No.	SP	Description
Q2004	8-729-029-06	s	TRANSISTOR DTC124EUA-T106
Q2005	8-729-028-83	s	TRANSISTOR DTA124EUA-T106
R102	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R103	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R104	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R105	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R108	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R109	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R111	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R112	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R114	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R115	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R116	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R117	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R118	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R119	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R120	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R127	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R131	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R132	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R133	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R134	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R135	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R136	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R137	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R140	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R141	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R142	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R143	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R144	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R145	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R146	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R147	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R148	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R153	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R154	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R155	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R156	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R202	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R203	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R204	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R205	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R208	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R209	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R211	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R212	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R214	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R215	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R216	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R217	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R218	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R219	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R220	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R221	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R222	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R223	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R224	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R225	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608

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Ref. No. or Q'ty	Part No.	SP	Description
R227	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R231	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R232	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R233	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R234	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R235	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R236	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R237	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R240	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R241	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R242	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R243	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R244	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R245	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R246	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R247	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R248	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R253	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R254	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R255	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R256	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R301	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R302	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R303	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R304	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R305	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R306	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R308	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R309	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R310	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R311	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R312	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R313	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R314	1-216-622-11	s	RESISTOR,CHIP 62 1/10W (2012)
R315	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R316	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R317	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R320	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R321	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R322	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R323	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R324	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R325	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R326	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R327	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R328	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R330	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R331	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R332	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R333	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R334	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R335	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R336	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R337	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R338	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R354	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R356	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R401	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R402	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R403	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R404	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R405	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R406	1-218-689-11	s	RESISTOR CHIP 750 1/16W (1608)
R408	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R409	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R410	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R411	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R412	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R413	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R414	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R415	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R416	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R417	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R420	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R421	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R422	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R423	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R424	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R425	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R426	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R427	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R428	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R430	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R431	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R432	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R433	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R434	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R435	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R436	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R437	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R438	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R454	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R456	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R541	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R542	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R545	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R548	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R551	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R552	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R553	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R554	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R555	1-216-849-11	s	RESISTOR,CHIP 220K 1/16 1608
R556	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R558	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R561	1-216-662-11	s	RESISTOR,CHIP 3K 1/10W (2012)
R562	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R563	1-216-662-11	s	RESISTOR,CHIP 3K 1/10W (2012)
R564	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R567	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R568	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R569	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R570	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R571	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R572	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R573	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R574	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R575	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R576	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)

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Ref. No. or Q'ty	Part No.	SP	Description
R577	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R578	1-216-089-91	s	RESISTOR, CHIP 47K
R579	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R580	1-218-756-11	s	RESISTOR,CHIP 150K 1/10W(2012)
R581	1-216-692-11	s	RESISTOR CHIP 51K 1/10W (2012)
R582	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R583	1-216-089-91	s	RESISTOR, CHIP 47K
R584	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R585	1-218-756-11	s	RESISTOR,CHIP 150K 1/10W(2012)
R586	1-218-733-11	s	RESISTOR,CHIP 51K 1/16W (1608)
R588	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R589	1-216-089-91	s	RESISTOR, CHIP 47K
R591	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R592	1-216-089-91	s	RESISTOR, CHIP 47K
R593	1-216-657-11	s	RESISTOR,CHIP 1.8K 1/10W(2012)
R594	1-216-657-11	s	RESISTOR,CHIP 1.8K 1/10W(2012)
R595	1-216-676-11	s	RESISTOR,CHIP 11K 1/10W(2012)
R596	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R597	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R603	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R604	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R605	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R606	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R607	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R608	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R609	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R610	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R611	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R612	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R613	1-216-803-11	s	RESISTOR,CHIP 33 1/16W 1608
R614	1-216-803-11	s	RESISTOR,CHIP 33 1/16W 1608
R615	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R616	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R617	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R619	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R620	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R621	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R622	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R625	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R630	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R632	1-218-681-11	s	RESISTOR CHIP 360 1/16W (1608)
R633	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R634	1-216-611-11	s	RESISTOR,CHIP 22 1/10W (2012)
R703	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R704	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R705	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R706	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R707	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R708	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R709	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R710	1-216-636-11	s	RESISTOR CHIP 240 1/10W (2012)
R711	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R712	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R713	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R714	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R715	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R716	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R717	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R718	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)

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Ref. No. or Q'ty	Part No.	SP	Description
R720	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R721	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R722	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R725	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R730	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R732	1-218-681-11	s	RESISTOR CHIP 360 1/16W (1608)
R733	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R734	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R803	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R804	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R805	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R806	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R807	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R808	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R809	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R810	1-216-636-11	s	RESISTOR CHIP 240 1/10W (2012)
R811	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R812	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R813	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R814	1-216-803-11	s	RESISTOR,CHIP 33 1/16W 1608
R815	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R816	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R817	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R818	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R820	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R821	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R822	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R825	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R830	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R832	1-216-640-11	s	RESISTOR CHIP 160 1/10W (2012)
R833	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R834	1-216-611-11	s	RESISTOR,CHIP 22 1/10W (2012)
R903	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R904	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R905	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R906	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R907	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R908	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R909	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R910	1-216-636-11	s	RESISTOR CHIP 240 1/10W (2012)
R911	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R912	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R913	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R914	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R915	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R916	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W 1608
R917	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R918	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R920	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R921	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R922	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R925	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R930	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R932	1-216-640-11	s	RESISTOR CHIP 160 1/10W (2012)
R933	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R934	1-216-611-11	s	RESISTOR,CHIP 22 1/10W (2012)
R1005	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1006	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1007	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)

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Ref. No. or Q'ty	Part No.	SP	Description
R1008	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1015	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R1016	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1018	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1019	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1020	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1021	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1022	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1023	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1024	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1025	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1026	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1027	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1028	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1029	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1030	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1031	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1032	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1033	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1034	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1035	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R1036	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1037	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1038	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1039	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R1040	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1041	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1042	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1043	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1044	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1045	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1046	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1047	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1048	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R1050	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R1051	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R1052	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R1053	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R1054	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R2001	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R2002	1-216-089-91	s	RESISTOR, CHIP 47K
R6000	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R6001	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R6002	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R6003	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R6004	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
RV551	1-241-264-11	s	RESISTOR ADJ 10K (CERMET)
S401	1-570-835-11	s	SWITCH,SLIDE (2-2-3)
S402	1-570-845-11	s	SWITCH,SLIDE (2-2-2)
S403	1-570-845-11	s	SWITCH,SLIDE (2-2-2)
S404	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S405	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S406	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S407	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S408	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S409	1-570-853-11	s	SWITCH,SLIDE (1-1-3)
S410	1-570-863-11	s	SWITCH,SLIDE (1-1-2)

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Ref. No. or Q'ty	Part No.	SP	Description
S411	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S412	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S413	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S414	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S415	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
S416	1-571-217-11	s	SWITCH,SLIDE (2-4-2)
S417	1-571-217-11	s	SWITCH,SLIDE (2-4-2)
S418	1-571-217-11	s	SWITCH,SLIDE (2-4-2)
S419	1-571-217-11	s	SWITCH,SLIDE (2-4-2)
S420	1-571-087-11	s	SWITCH,SLIDE (2-4-3)
S421	1-571-087-11	s	SWITCH,SLIDE (2-4-3)
S422	1-571-087-11	s	SWITCH,SLIDE (2-4-3)
S423	1-571-087-11	s	SWITCH,SLIDE (2-4-3)
S424	1-570-853-11	s	SWITCH,SLIDE (1-1-3)

CS-25 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-638-701-12	o	PRINTED WIRING BOARD, CS-25
CN1	1-564-013-11	o	PIN,CONNECTOR 3P
PD3	8-719-939-05	s	PHOTO INTERRUPTER GP1S54
R4	1-247-827-11	s	RESISTOR,CARBON(SMALL)680 1/4W
R5	1-247-871-11	s	RES,CARBON(SMALL)47K

CS-26 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-638-702-11	o	PRINTED WIRING BOARD, CS-26
7pcs	1-564-831-11	o	CONNECTOR CONTACT
7pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
CN1	1-562-740-11	o	HOUSING, CONNECTOR 7P
CN2	1-564-013-11	o	PIN,CONNECTOR 3P
CN957	1-569-200-21	o	HOUSING, CONNECTOR 7P
PD1	8-719-939-05	s	PHOTO INTERRUPTER GP1S54
PD2	8-719-939-05	s	PHOTO INTERRUPTER GP1S54
R1	1-249-413-11	s	RES,CARBON 470 1/4W SMALL
R2	1-247-871-11	s	RES,CARBON(SMALL)47K
R3	1-247-871-11	s	RES,CARBON(SMALL)47K

DC-85 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-658-773-11	o	PRINTED WIRING BOARD, DC-85
CN1	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P
CN2	1-565-875-11	o	PIN,CONNECTOR(PC BOARD)3P

DCP-22 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-959-A	o	MOUNTED CIRCUIT BOARD, DCP-22
C100	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C101	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C102	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C103	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C104	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C106	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C107	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C108	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C109	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C110	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C111	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C112	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C113	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C114	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C115	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C116	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C117	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C118	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C119	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C120	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C121	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C122	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C123	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C124	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C125	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C126	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C127	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C128	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C129	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C130	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C131	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C132	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C133	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C134	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C135	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C136	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C137	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C138	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C139	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C140	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C141	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C142	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C143	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C144	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C145	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C211	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C212	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C213	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C214	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C215	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C216	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C217	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C218	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C219	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C220	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C221	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C222	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C223	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C224	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C225	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C226	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C227	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C228	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C229	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C230	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C231	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C232	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C233	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C234	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C235	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C236	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C237	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C238	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C239	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C240	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C241	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C242	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C243	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C244	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C245	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C246	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C247	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C248	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C249	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C250	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C251	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C252	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C253	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C254	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C255	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C256	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C257	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C258	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C259	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C260	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C261	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C262	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C265	1-162-914-11	s	CAPACITOR,CERAMIC 9PF/50V 1608
C266	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C267	1-162-965-11	s	CAPACITOR,CERAMIC 1500PF/50V B
C268	1-164-230-11	s	CAP, CERAMIC 220PF CH 1608
C269	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C270	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C271	1-107-686-11	s	CAPACITOR,CHIP ELECT 4.7M/16V
C272	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C273	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C274	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C275	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C276	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C277	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C278	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C279	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C280	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C281	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C282	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C283	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C284	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C285	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

Ref. No. or Q'ty	Part No.	SP	Description
C286	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C287	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C288	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C289	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C290	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C291	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C292	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C293	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C294	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C295	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C296	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C297	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C298	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C299	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C300	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C301	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C304	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C305	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C306	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C307	1-107-854-11	s	CAPACITOR TANTALUM 68MF/6.3V
C308	1-107-854-11	s	CAPACITOR TANTALUM 68MF/6.3V
C400	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C401	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C403	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C404	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C405	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C406	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C407	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C408	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C409	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
C410	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
C411	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
C412	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
C413	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
C414	1-127-708-11	s	CAP, POLYPYRROLE 100MF
C415	1-127-707-11	s	CAPACITOR,POLYPYRROLE 150MF
C416	1-127-707-11	s	CAPACITOR,POLYPYRROLE 150MF
C417	1-127-707-11	s	CAPACITOR,POLYPYRROLE 150MF
C418	1-127-708-11	s	CAP, POLYPYRROLE 100MF
C419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C420	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C421	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C422	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C423	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C424	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C425	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C426	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C427	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C500	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C501	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C502	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C504	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C505	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C506	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C507	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C508	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C509	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C510	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

Ref. No. or Q'ty	Part No.	SP	Description
C511	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
CN1	1-566-758-11	o	PIN,CONNECTOR 3P
CN2	1-566-762-11	o	PIN,CONNECTOR(PC BOARD)7P
D200	8-719-941-86	s	DIODE DAN202U
FB100	1-412-363-21	s	MICRO INDUCTOR
FB201	1-412-363-21	s	MICRO INDUCTOR
FB202	1-412-363-21	s	MICRO INDUCTOR
FB203	1-412-363-21	s	MICRO INDUCTOR
FB204	1-412-363-21	s	MICRO INDUCTOR
FB205	1-412-363-21	s	MICRO INDUCTOR
FB500	1-412-363-21	s	MICRO INDUCTOR
FL200	1-239-931-11	s	FILTER, LOW PASS
IC100	8-759-389-48	s	IC 74LCX16374MTDX
IC101	8-759-389-48	s	IC 74LCX16374MTDX
IC102	8-759-549-15	s	IC SN74LV245APWR
IC103	8-759-549-15	s	IC SN74LV245APWR
IC104	8-759-547-49	s	IC CDC509PWR
IC105	8-759-588-03	s	IC CXD9092GB
IC106	8-759-559-40	s	IC MB811643242A-100FN
IC107	8-759-386-27	s	IC 74LCX04MTCX
IC108	8-759-389-26	s	IC 74LCX08MTCX
IC203	8-759-578-67	s	IC CXD9100R
IC204	8-759-929-26	s	IC TL431CPS
IC205	8-759-542-84	s	IC S-80821ANUP-EDJ-T2
IC207	8-759-485-82	s	IC MC34182DR2
IC208	8-759-391-22	s	IC CA3094M
IC209	8-759-528-99	s	IC TC74VHC221AFT(EL)
IC210	8-759-098-16	s	IC LT1227CS8
IC211	8-759-271-04	s	IC LT1252CS8
IC212	8-759-391-22	s	IC CA3094M
IC213	8-759-098-16	s	IC LT1227CS8
IC214	8-759-528-99	s	IC TC74VHC221AFT(EL)
IC215	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC216	8-759-430-32	s	IC TLC2933IPWR
IC217	8-759-389-31	s	IC 74LCX125MTCX
IC218	8-759-389-33	s	IC 74LCX244MTCX
IC219	8-759-485-82	s	IC MC34182DR2
IC400	8-759-549-15	s	IC SN74LV245APWR
IC401	8-759-651-59	s	IC SN74CBTLV3245APWR
IC402	8-759-651-59	s	IC SN74CBTLV3245APWR
IC403	8-759-545-23	s	IC ISPLSI2128V-80LT100
IC404	8-759-185-42	s	IC LM4040AIM3-2.5
IC405	8-759-173-16	s	IC TL062CPW
IC500	8-759-421-88	s	IC SN74LVC821APW (E05)
IC501	8-759-547-49	s	IC CDC509PWR
L200	1-412-166-11	s	MICRO INDUCTOR 0.18UH
L201	1-412-143-11	s	INDUCTOR,MICRO 39UH
Q400	8-729-117-32	s	TRANSISTOR 2SC4177
Q401	8-729-117-16	s	TRANSISTOR 2SA1611M6
Q402	8-729-820-86	s	TRANSISTOR 2SB1121-ST
Q403	8-729-120-21	s	TRANSISTOR 2SD1614-T1XL
R100	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R101	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R102	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R103	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R104	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R105	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R106	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R107	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R108	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R109	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R111	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R112	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R113	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R114	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R115	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R116	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R117	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R118	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R119	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R120	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R121	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R122	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R123	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R124	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R125	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R126	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R127	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R128	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R129	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R130	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R131	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R132	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R133	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R134	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R135	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R136	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R137	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R138	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R139	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R140	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R141	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R142	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R143	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R144	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R145	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R146	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R147	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R148	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R149	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R150	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R153	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R156	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R157	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R158	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R216	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R217	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R218	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R219	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R220	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R221	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R222	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R223	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R225	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)

Ref. No. or Q'ty	Part No.	SP	Description
R226	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R227	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R228	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R229	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R230	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R231	1-218-671-11	s	RESISTOR,CHIP 130 1/16W (1608)
R232	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R233	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R234	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R235	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R236	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R237	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R238	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R239	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R240	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R242	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R244	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R245	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R248	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R249	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R250	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R251	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R252	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R253	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R254	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R257	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R258	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R259	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R263	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R264	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R265	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R266	1-218-706-11	s	RESISTOR,CHIP 3.9K 1/16W(1608)
R267	1-218-699-11	s	RESISTOR,CHIP 2.0K 1/16W(1608)
R268	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R271	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R272	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R273	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R274	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R275	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R276	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R277	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R278	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R279	1-218-650-11	s	RESISTOR,CHIP 18 1/16W (1608)
R280	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R281	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R282	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R283	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R284	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R285	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R286	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R287	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R288	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R289	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R290	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R291	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R292	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R293	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R294	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R295	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R296	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R297	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R298	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R299	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R300	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R301	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R302	1-218-680-11	s	RESISTOR,CHIP 330 1/16W (1608)
R303	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R304	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R305	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R306	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R307	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R308	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R309	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R310	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R311	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R312	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R313	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R314	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R315	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R316	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R317	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R318	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R319	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R320	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R321	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R322	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R323	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R324	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R325	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R326	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R327	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R329	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R330	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R331	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R332	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R333	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R334	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R337	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R339	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R340	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R341	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R342	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R343	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R344	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R345	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R346	1-218-701-11	s	RESISTOR,CHIP 2.4K 1/16W(1608)
R347	1-218-776-11	s	RESISTOR CHIP 1M 1/10W (2012)
R348	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R349	1-218-721-11	s	RESISTOR,CHIP 16K 1/16W(1608)
R350	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R351	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R352	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R353	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R354	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R355	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R356	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R400	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R401	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R402	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R403	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R404	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R405	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R406	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R407	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R408	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R409	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R410	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R411	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R412	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R413	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R414	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R415	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R416	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R417	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R418	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R419	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R420	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R421	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R422	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R423	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R424	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R425	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R426	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R427	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R428	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R429	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R430	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R431	1-218-701-11	s	RESISTOR,CHIP 2.4K 1/16W(1608)
R432	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R433	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R434	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R435	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R436	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R437	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R438	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R439	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R440	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R441	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R442	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R443	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R444	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R445	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R447	1-218-660-91	s	RESISTOR,CHIP 47 1/16W(1608)
R448	1-218-602-11	s	RESISTOR,CHIP 1/1W (6331)
R449	1-218-602-11	s	RESISTOR,CHIP 1/1W (6331)
R500	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R501	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R502	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R503	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R504	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R505	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R506	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R508	1-218-660-91	s	RESISTOR,CHIP 47 1/16W(1608)
R509	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R510	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R511	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R512	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R513	1-218-660-91	s	RESISTOR,CHIP 47 1/16W(1608)
R514	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R515	1-218-660-91	s	RESISTOR,CHIP 47 1/16W(1608)
R516	1-218-660-91	s	RESISTOR,CHIP 47 1/16W(1608)
R520	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R521	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R522	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R523	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R524	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R525	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
RB100	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB101	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB102	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB103	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB104	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB105	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB106	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB107	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB108	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB109	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB110	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB111	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB112	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB113	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB114	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB115	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB116	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB400	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB401	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB402	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB403	1-236-908-11	s	RESISTOR,NETWORK 10K (3216)
RB404	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB405	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB500	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB501	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB502	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB503	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RV200	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
RV201	1-237-036-11	s	RESISTOR, ADJ,CERMET 10K
S100	1-692-270-41	s	SWITCH, SLIDE
X200	1-767-618-11	s	OSCILLATOR, CRYSTAL

DET-15 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-638-705-12	o	PRINTED WIRING BOARD, DET-15
CN1	1-506-482-11	s	PIN, CONNECTOR 3P
PD1	8-719-939-05	s	PHOTO INTERRUPTER GP1S54
R1	1-249-409-11	s	RES,CARBON 220 1/4W (SMALL)
R2	1-247-847-11	s	RESISTOR, CARBON (SMALL) 4.7K

DET-36 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-358-A	o	MOUNTED CIRCUIT BOARD, DET-36
CN1	1-506-469-11	s	PIN,CONNECTOR 4P
PD1	8-719-988-15	s	PHOTO REFRECTOR PR-11-C
PD2	8-719-988-15	s	PHOTO REFRECTOR PR-11-C
Q1	8-729-117-32	s	TRANSISTOR 2SC4177
Q2	8-729-117-32	s	TRANSISTOR 2SC4177
R1	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R2	1-216-109-00	s	RESISTOR CHIP 330K 1/10W(2012)
R3	1-216-109-00	s	RESISTOR CHIP 330K 1/10W(2012)

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DPR-125 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-709-A	o	MOUNTED CIRCUIT BOARD, DPR-125
C100	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C101	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C102	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C103	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C104	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C105	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C106	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C107	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C108	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C109	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C110	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C111	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C112	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C113	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C114	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C115	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C116	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C117	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C118	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C119	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C120	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C121	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C122	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C123	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C124	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C125	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C126	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C127	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C128	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C129	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C130	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C131	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C133	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C200	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C201	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C202	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C203	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C204	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C205	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C206	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C207	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C208	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C209	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C210	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C211	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C212	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C213	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C214	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C215	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C216	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C217	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C218	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C219	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C220	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C221	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C222	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C223	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C224	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C225	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C226	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C227	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C229	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C300	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C309	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C310	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C311	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C312	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C313	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C314	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C315	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C316	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C317	1-127-707-11	s	CAPACITOR,POLYPYRROLE 150MF
C331	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C332	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C333	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C334	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C335	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C336	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C337	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C338	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C339	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C340	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C341	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C342	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C343	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C344	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C345	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C346	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C347	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C348	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C349	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C350	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C351	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C352	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C353	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C354	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C355	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C356	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C360	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C361	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C362	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C363	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C364	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C365	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C366	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C367	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C368	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C369	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C370	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C400	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C401	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C403	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C404	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C405	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C406	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C407	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C408	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

Ref. No. or Q'ty	Part No.	SP	Description
C409	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C410	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C412	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C414	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C415	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C416	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C417	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C418	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C420	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C421	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C422	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C423	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C424	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C425	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C426	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C427	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C428	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C429	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C430	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C431	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C432	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C433	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C434	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C435	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C436	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C437	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C438	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C439	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C440	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C441	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C442	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C443	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C444	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C445	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C446	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C447	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C448	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C449	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C450	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C451	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C452	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C453	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C454	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C455	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C456	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C457	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C458	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C459	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C460	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C461	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C462	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C463	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C500	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C501	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C502	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C503	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

Ref. No. or Q'ty	Part No.	SP	Description
C504	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C505	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C506	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C507	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C508	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C509	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C510	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C511	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C512	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C513	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C514	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C515	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C516	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C517	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C518	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C519	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C520	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C521	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C522	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C523	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C524	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C525	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C526	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C527	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C528	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C529	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C530	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C531	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C532	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C533	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C534	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C535	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C536	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C537	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C538	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C539	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C540	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C541	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C542	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C543	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C544	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C545	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C546	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C547	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C548	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C549	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C550	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C551	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C552	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C553	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C554	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C555	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C556	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C557	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C558	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C559	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C560	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C561	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C562	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

Ref. No. or Q'ty	Part No.	SP	Description
C563	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C600	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C601	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C602	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C603	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C604	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C605	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C606	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C607	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C608	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C609	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C610	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C611	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C612	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C613	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C614	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C615	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C616	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C617	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C618	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C619	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C620	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C621	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C622	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C623	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C624	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C625	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C626	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C628	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C630	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C631	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C632	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C633	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C634	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C635	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C636	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C637	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C638	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C639	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C640	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C641	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C700	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C701	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C702	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C703	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C705	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C706	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C707	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C708	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C709	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C800	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C801	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C802	1-128-707-11	s	CAPACITOR,POLYPYRROLE 220MF
C803	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C804	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C805	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C806	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C807	1-128-707-11	s	CAPACITOR,POLYPYRROLE 220MF
C809	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V

Ref. No. or Q'ty	Part No.	SP	Description
C812	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C813	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C815	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C816	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C818	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
CN201	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN202	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN203	1-774-263-11	s	CONNECTOR, BOARD TO BOARD 20P
CN204	1-774-264-11	s	CONNECTOR, BOARD TO BOARD 26P
CN205	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
D700	8-719-938-72	s	DIODE SB01-05CP (RECTI)
D701	8-719-938-72	s	DIODE SB01-05CP (RECTI)
D702	8-719-938-72	s	DIODE SB01-05CP (RECTI)
D703	8-719-938-72	s	DIODE SB01-05CP (RECTI)
FB360	1-543-622-11	s	BEAD,FERRITE (CHIP)
FL800	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL801	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
IC101	8-759-386-26	s	IC 74LCX574MTCX
IC102	8-759-386-26	s	IC 74LCX574MTCX
IC103	8-759-567-34	s	IC KM416S1020CT-G10T
IC104	8-759-567-34	s	IC KM416S1020CT-G10T
IC105	8-759-389-48	s	IC 74LCX16374MTDX
IC106	8-759-421-88	s	IC SN74LVC821APW (E05)
IC201	8-759-567-34	s	IC KM416S1020CT-G10T
IC202	8-759-567-34	s	IC KM416S1020CT-G10T
IC300	8-759-498-17	s	IC CXD9015CR
IC301	8-759-549-15	s	IC SN74LV245APWR
IC302	8-759-386-28	s	IC 74LCX00MTCX
IC303	8-759-567-34	s	IC KM416S1020CT-G10T
IC305	8-759-549-15	s	IC SN74LV245APWR
IC360	8-759-547-50	s	IC CDC516DGGR
IC361	8-759-386-27	s	IC 74LCX04MTCX
IC400	8-759-498-89	s	IC CXD9020CR
IC402	8-759-567-34	s	IC KM416S1020CT-G10T
IC403	8-759-567-34	s	IC KM416S1020CT-G10T
IC404	8-759-567-34	s	IC KM416S1020CT-G10T
IC500	8-759-498-89	s	IC CXD9020CR
IC502	8-759-567-34	s	IC KM416S1020CT-G10T
IC503	8-759-567-34	s	IC KM416S1020CT-G10T
IC504	8-759-567-34	s	IC KM416S1020CT-G10T
IC601	8-759-567-34	s	IC KM416S1020CT-G10T
IC602	8-759-567-34	s	IC KM416S1020CT-G10T
IC700	8-759-549-15	s	IC SN74LV245APWR
IC701	8-759-549-15	s	IC SN74LV245APWR
IC702	8-759-549-15	s	IC SN74LV245APWR
IC703	8-759-549-15	s	IC SN74LV245APWR
IC704	8-759-548-99	s	IC SN74LV08APWR
IC705	8-759-549-15	s	IC SN74LV245APWR
IC706	8-759-549-15	s	IC SN74LV245APWR
IC707	8-759-549-15	s	IC SN74LV245APWR
IC708	8-759-549-15	s	IC SN74LV245APWR
IC709	8-759-549-15	s	IC SN74LV245APWR
IC800	8-729-024-50	s	TRANSISTOR SI9936DY
IC801	8-759-549-15	s	IC SN74LV245APWR
IC802	8-729-024-50	s	TRANSISTOR SI9936DY
IC803	8-729-024-50	s	TRANSISTOR SI9936DY
IC804	8-729-024-50	s	TRANSISTOR SI9936DY
IC805	8-729-024-50	s	TRANSISTOR SI9936DY

Ref. No. or Q'ty	Part No.	SP	Description
IC806	8-729-024-50	s	TRANSISTOR SI9936DY
IC807	8-729-024-50	s	TRANSISTOR SI9936DY
IC808	8-729-024-50	s	TRANSISTOR SI9936DY
Q801	8-729-928-81	s	TRANSISTOR DTC144EE
Q804	8-729-928-81	s	TRANSISTOR DTC144EE
Q806	8-729-928-81	s	TRANSISTOR DTC144EE
Q807	8-729-928-81	s	TRANSISTOR DTC144EE
Q809	8-729-928-81	s	TRANSISTOR DTC144EE
R101	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R102	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R103	1-216-296-91	s	RESISTOR, CHIP
R104	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R105	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R106	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R108	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R109	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R110	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R111	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R112	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R114	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R115	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R116	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R117	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R118	1-216-296-91	s	RESISTOR, CHIP
R119	1-216-296-91	s	RESISTOR, CHIP
R200	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R201	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R202	1-216-296-91	s	RESISTOR, CHIP
R203	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R204	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R205	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R206	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R207	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R209	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R210	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R211	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R212	1-216-296-91	s	RESISTOR, CHIP
R213	1-216-296-91	s	RESISTOR, CHIP
R300	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R301	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R302	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R304	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R305	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R306	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R308	1-216-296-91	s	RESISTOR, CHIP
R310	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R311	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R312	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R313	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R315	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R316	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R320	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R323	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R324	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R325	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R326	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R327	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R328	1-218-667-11	s	RESISTOR CHIP 91 1/16W (1608)
R329	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R330	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R331	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R332	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R333	1-216-296-91	s	RESISTOR, CHIP
R360	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R361	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R400	1-216-296-91	s	RESISTOR, CHIP
R401	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R402	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R403	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R404	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R405	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R406	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R407	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R408	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R409	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R410	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R411	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R412	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R413	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R414	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R415	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R416	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R417	1-216-296-91	s	RESISTOR, CHIP
R418	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R419	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R420	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R421	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R422	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R423	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R424	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R425	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R426	1-216-296-91	s	RESISTOR, CHIP
R428	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R429	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R430	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R431	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R432	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R433	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R434	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R435	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R436	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R437	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R438	1-216-296-91	s	RESISTOR, CHIP
R439	1-216-296-91	s	RESISTOR, CHIP
R440	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R441	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R442	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R443	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R444	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R445	1-216-296-91	s	RESISTOR, CHIP
R446	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R500	1-216-296-91	s	RESISTOR, CHIP
R501	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R502	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R503	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R504	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R505	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R506	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R507	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R508	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R509	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R510	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R511	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R512	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R513	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R514	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R515	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R517	1-216-296-91	s	RESISTOR, CHIP
R518	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R519	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R520	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R521	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R522	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R523	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R524	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R525	1-216-296-91	s	RESISTOR, CHIP
R527	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R528	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R529	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R530	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R531	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R532	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R533	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R534	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R535	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R536	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R537	1-216-296-91	s	RESISTOR, CHIP
R538	1-216-296-91	s	RESISTOR, CHIP
R539	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R540	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R541	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R542	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R543	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R544	1-216-296-91	s	RESISTOR, CHIP
R600	1-216-296-91	s	RESISTOR, CHIP
R601	1-216-296-91	s	RESISTOR, CHIP
R602	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R603	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R604	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R606	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R608	1-216-296-91	s	RESISTOR, CHIP
R610	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R700	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R701	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R703	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R704	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R705	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R707	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R708	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R709	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R710	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R711	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R712	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R713	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R714	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R750	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R751	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R752	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R753	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R754	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R801	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R804	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R806	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R807	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R809	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
RB100	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB101	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB102	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB103	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB104	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB105	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB106	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB107	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB108	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB109	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB110	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB111	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB112	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB113	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB114	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB115	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB116	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB117	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB200	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB201	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB202	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB203	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB301	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB302	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB303	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB304	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB306	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB307	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB308	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB310	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB311	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB312	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB313	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB317	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB318	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB319	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB320	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB360	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB361	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB362	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB363	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB400	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB401	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB402	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB403	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB404	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB405	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB406	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB500	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB501	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB502	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)

(DPR-125 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RB503	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB504	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB601	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB602	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB603	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB605	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB607	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB608	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB609	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB611	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB612	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB613	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB700	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB701	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB704	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB705	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB706	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB707	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB708	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB709	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB710	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB711	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB712	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB715	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB716	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB717	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB718	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB719	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB720	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB721	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB722	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB723	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB724	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB725	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB726	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB727	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB728	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB729	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB730	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB731	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB732	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB733	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB734	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB735	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB736	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB737	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB738	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB739	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB740	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB741	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB742	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB801	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
X300	1-767-484-11	s	OSCILLATOR, CRYSTAL
X301	1-767-483-11	s	OSCILLATOR, CRYSTAL

DUS-173 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-342-A	o	MOUNTED CIRCUIT BOARD, DUS-173
CN1	1-566-759-11	o	PIN,CONNECTOR 4P
Q1	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q2	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q3	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q4	8-729-209-07	s	TRANSISTOR 2SC4213-B
R1	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R2	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R4	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R5	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R6	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R7	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608
R8	1-216-829-11	s	RESISTOR, CHIP 4.7K 1/16W 1608

EQ-76 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-353-A	o	MOUNTED CIRCUIT BOARD, EQ-76
C101	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C102	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C103	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C105	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C106	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C107	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C108	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C109	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C110	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C112	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C113	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C114	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C115	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C116	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C117	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C118	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C119	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C120	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C121	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C122	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C123	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C124	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C125	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C126	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C127	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C128	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C129	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C130	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C131	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C132	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C133	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C134	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C136	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C138	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C139	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C140	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C141	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C142	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C143	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C144	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C145	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C146	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C147	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C148	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C200	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C201	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C202	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C203	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C204	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C205	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C206	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C207	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C208	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C209	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C210	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C211	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C212	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C213	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C214	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C215	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C216	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C217	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C218	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C219	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C220	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C221	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C222	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C223	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C224	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C225	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C226	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C227	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C228	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C229	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C230	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C231	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C233	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C235	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C236	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C237	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C238	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C239	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C240	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C241	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C242	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C243	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C244	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C245	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C246	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C247	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C248	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C249	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C250	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C251	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C252	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C253	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C254	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C255	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C256	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C257	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C258	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C301	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C302	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C303	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C305	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C306	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C307	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C308	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C309	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C310	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C312	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C313	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C315	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C316	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C317	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C318	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F

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Ref. No. or Q'ty	Part No.	SP	Description
C319	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C320	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C321	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C322	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C323	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C324	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C325	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C326	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C327	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C328	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C329	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C330	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C331	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C332	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C333	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C334	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C336	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C338	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C339	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C340	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C341	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C342	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C343	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C344	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C345	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C346	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C347	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C401	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C402	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C403	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C405	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C406	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C407	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C408	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C409	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C410	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C412	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C413	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C415	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C416	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C417	1-164-739-11	s	CAPACITOR CERAMIC 560PF (1608)
C418	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C419	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C420	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C421	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C422	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C423	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C424	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C425	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C426	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C427	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C428	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C429	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C430	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C431	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C433	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C435	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C436	1-113-994-11	s	CAPACITOR TANTALUM 6.8MF/16V
C437	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F

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Ref. No. or Q'ty	Part No.	SP	Description
C438	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C439	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C440	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C441	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C442	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C443	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C501	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C502	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C503	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C504	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C505	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C506	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C507	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C512	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C513	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C518	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C519	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C520	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C521	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C522	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C523	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C524	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C525	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C526	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C527	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C528	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C529	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C530	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C531	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C532	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C535	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C536	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C537	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C538	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C539	1-162-916-11	s	CAPACITOR,CERAMIC 12PF/50V CH
C540	1-162-916-11	s	CAPACITOR,CERAMIC 12PF/50V CH
C541	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C542	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C543	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C544	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C545	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C546	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C547	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C548	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C549	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C550	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C551	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C552	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C553	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C554	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C555	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C556	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C557	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C558	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C559	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C560	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C561	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C562	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C563	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F

Ref. No. or Q'ty	Part No.	SP	Description
C564	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C565	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C566	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C567	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C568	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C569	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C601	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C602	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C603	1-115-581-11	s	CAPACITOR CHIP ELECT 100MF/16V
C604	1-115-581-11	s	CAPACITOR CHIP ELECT 100MF/16V
C605	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C606	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C607	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C608	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C609	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C610	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C611	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C612	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C613	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C614	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C615	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C616	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C617	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C618	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C701	1-135-145-11	s	CAPACITOR TANTALUM 0.47MF/35V
C702	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C703	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C704	1-135-201-11	s	CAPACITOR,CHIP TANTAL 10MF/4V
C705	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C706	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C707	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C708	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C709	1-135-145-11	s	CAPACITOR TANTALUM 0.47MF/35V
C710	1-135-070-00	s	CAPACITOR TANTALUM 0.1MF/35V
C711	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C712	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C713	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C714	1-127-962-21	s	CAPACITOR, CHIP FILM 0.00033MF
C715	1-127-947-21	s	CAPACITOR,CHIP FILM 0.0033MF
C716	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C717	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C718	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C719	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C720	1-165-176-11	s	CAPACITOR,CERAMIC 47000PF/16V
C721	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C722	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C723	1-135-201-11	s	CAPACITOR,CHIP TANTAL 10MF/4V
C724	1-107-689-21	s	CAPACITOR TANTALUM 1MF/35V
C725	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C726	1-163-139-00	s	CAPACITOR,CHIP CERAMIC 820PF
C727	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C728	1-109-899-11	s	CAPACITOR,CHIP CERAMIC 330PF
C729	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C730	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C731	1-119-751-11	s	DAPACITOR,TANTALUM 22MF/16V
C732	1-135-201-11	s	CAPACITOR,CHIP TANTAL 10MF/4V
C733	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C734	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C735	1-109-900-11	s	CAPACITOR, CHIP CERAMIC 470PF

Ref. No. or Q'ty	Part No.	SP	Description
C736	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C737	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C738	1-107-689-21	s	CAPACITOR TANTALUM 1MF/35V
C739	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C740	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C741	1-164-217-11	s	CAPACITOR,CERAMIC 150PF/50V CH
C742	1-127-950-21	s	CAPACITOR FILM 0.01MF/16V
C743	1-104-847-11	s	CAPACITOR TANTALUM 22MF/4V
C744	1-135-145-11	s	CAPACITOR TANTALUM 0.47MF/35V
C745	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C746	1-107-689-21	s	CAPACITOR TANTALUM 1MF/35V
C747	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C748	1-107-689-21	s	CAPACITOR TANTALUM 1MF/35V
C1712	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
CN301	1-564-005-11	o	PIN, CONNECTOR 6P
CN302	1-566-759-11	o	PIN,CONNECTOR 4P
CN303	1-506-471-11	o	PIN,CONNECTOR 6P
CN304	1-506-468-11	o	PIN,CONNECTOR 3P
CN305	1-580-538-11	o	PIN, CONNECTOR (PC BOARD) 18P
CN911	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN912	1-774-267-11	s	CONNECTOR, BOARD TO BOARD 20P
CN913	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CT701	1-426-884-11	s	TRANSFORMER, BIAS OSCILLATION
CV701	1-141-365-11	s	CAPACITOR, TRIMMER
D101	8-719-820-61	s	DIODE 1SS294
D102	8-719-029-61	s	DIODE RD3.6UH-T1
D201	8-719-820-61	s	DIODE 1SS294
D202	8-719-029-61	s	DIODE RD3.6UH-T1
D301	8-719-820-61	s	DIODE 1SS294
D302	8-719-029-61	s	DIODE RD3.6UH-T1
D401	8-719-820-61	s	DIODE 1SS294
D402	8-719-029-61	s	DIODE RD3.6UH-T1
D601	8-719-029-62	s	DIODE RD3.9UH-T1
D602	8-719-029-62	s	DIODE RD3.9UH-T1
D701	8-719-941-86	s	DIODE DAN202U
D702	8-719-941-86	s	DIODE DAN202U
DL101	1-416-390-11	s	DELAY LINE
DL201	1-416-390-11	s	DELAY LINE
DL301	1-416-390-11	s	DELAY LINE
DL401	1-416-390-11	s	DELAY LINE
IC101	8-759-260-55	s	IC TLC272CPW (E05)
IC102	8-759-260-55	s	IC TLC272CPW (E05)
IC103	8-752-081-11	s	IC CXA3093Q
IC105	8-752-371-18	s	IC CXD2302Q
IC106	8-759-173-13	s	IC CXD8815Q
IC108	8-759-389-37	s	IC 74LCX374MTCX
IC200	8-759-075-53	s	IC LM35DM
IC201	8-759-260-55	s	IC TLC272CPW (E05)
IC202	8-759-260-55	s	IC TLC272CPW (E05)
IC203	8-752-081-11	s	IC CXA3093Q
IC204	8-759-386-27	s	IC 74LCX04MTCX
IC205	8-752-371-18	s	IC CXD2302Q
IC206	8-759-389-37	s	IC 74LCX374MTCX
IC207	8-759-560-33	s	IC DS90LV031ATMX
IC301	8-759-260-55	s	IC TLC272CPW (E05)
IC302	8-759-260-55	s	IC TLC272CPW (E05)

Ref. No. or Q'ty	Part No.	SP	Description
IC303	8-752-081-11	s	IC CXA3093Q
IC305	8-752-371-18	s	IC CXD2302Q
IC306	8-759-173-13	s	IC CXD8815Q
IC308	8-759-389-37	s	IC 74LCX374MTCX
IC401	8-759-260-55	s	IC TLC272CPW (E05)
IC402	8-759-260-55	s	IC TLC272CPW (E05)
IC403	8-752-081-11	s	IC CXA3093Q
IC404	8-759-386-27	s	IC 74LCX04MTCX
IC405	8-752-371-18	s	IC CXD2302Q
IC406	8-759-389-37	s	IC 74LCX374MTCX
IC407	8-759-560-33	s	IC DS90LV031ATMX
IC501	8-759-560-34	s	IC DS90LV032ATMX
IC502	8-759-560-34	s	IC DS90LV032ATMX
IC503	8-759-389-37	s	IC 74LCX374MTCX
IC504	8-759-560-33	s	IC DS90LV031ATMX
IC505	8-759-560-33	s	IC DS90LV031ATMX
IC506	8-759-112-53	s	IC UPC1663G
IC507	8-759-112-53	s	IC UPC1663G
IC508	8-759-271-18	s	IC NJM1496V
IC509	8-759-271-18	s	IC NJM1496V
IC510	8-759-260-55	s	IC TLC272CPW (E05)
IC511	8-759-260-55	s	IC TLC272CPW (E05)
IC601	8-759-058-58	s	IC TC7S04FU-TE85R
IC602	8-759-082-59	s	IC TC7W32FU
IC603	8-759-082-59	s	IC TC7W32FU
IC604	8-759-058-62	s	IC TC7S08FU-TE85R
IC605	8-759-635-27	s	IC M62352GP
IC606	8-759-635-27	s	IC M62352GP
IC701	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC702	8-759-710-28	s	IC NJM4565M-A
IC703	8-759-491-45	s	IC TC74VHCT00AFT(EL)
IC704	8-759-710-28	s	IC NJM4565M-A
IC705	8-759-710-28	s	IC NJM4565M-A
IC706	8-759-530-05	s	IC TC4053BFT (EL.N)
IC707	8-759-710-28	s	IC NJM4565M-A
L200	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L201	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L203	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L204	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L205	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L206	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L207	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L208	1-412-982-21	s	INDUCTOR (SMALL TYPE)
L601	1-409-579-11	s	COIL, CHOKE 8.2UH
L602	1-409-579-11	s	COIL, CHOKE 8.2UH
L603	1-409-579-11	s	COIL, CHOKE 8.2UH
L604	1-409-579-11	s	COIL, CHOKE 8.2UH
L701	1-409-579-11	s	COIL, CHOKE 8.2UH
L702	1-409-579-11	s	COIL, CHOKE 8.2UH
L703	1-408-785-21	s	CHIP INDUCTOR
LV701	1-410-853-21	s	COIL, VARIABLE
Q100	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q101	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q102	8-729-140-47	s	TRANSISTOR 2SC3735-L-B35
Q103	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q104	8-729-907-46	s	TRANSISTOR IMZ1
Q105	8-729-926-27	s	TRANSISTOR FMW10
Q106	8-729-926-27	s	TRANSISTOR FMW10
Q200	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q201	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q202	8-729-140-47	s	TRANSISTOR 2SC3735-L-B35
Q203	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q204	8-729-907-46	s	TRANSISTOR IMZ1
Q205	8-729-926-27	s	TRANSISTOR FMW10
Q206	8-729-926-27	s	TRANSISTOR FMW10
Q207	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q208	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q209	8-729-907-46	s	TRANSISTOR IMZ1
Q210	8-729-926-27	s	TRANSISTOR FMW10
Q211	8-729-926-27	s	TRANSISTOR FMW10
Q212	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q213	8-729-028-13	s	TRANSISTOR 2SA1885-T106
Q214	8-729-907-46	s	TRANSISTOR IMZ1
Q215	8-729-926-27	s	TRANSISTOR FMW10
Q216	8-729-926-27	s	TRANSISTOR FMW10
Q301	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q302	8-729-140-47	s	TRANSISTOR 2SC3735-L-B35
Q401	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q402	8-729-140-47	s	TRANSISTOR 2SC3735-L-B35
Q501	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q502	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q503	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q504	9-910-999-30	s	HANDLED BY TOKYO PROD.GP
Q505	8-729-045-28	s	TRANSISTOR SI4532DY-T1
Q506	8-729-029-06	s	TRANSISTOR DTC124EUA-T106
Q507	8-729-029-06	s	TRANSISTOR DTC124EUA-T106
Q601	8-729-928-49	s	TRANSISTOR DTA124XE-TL
Q602	8-729-929-02	s	TRANSISTOR DTC124XE
Q603	8-729-045-28	s	TRANSISTOR SI4532DY-T1
Q604	8-729-928-49	s	TRANSISTOR DTA124XE-TL
Q605	8-729-929-02	s	TRANSISTOR DTC124XE
Q606	8-729-045-28	s	TRANSISTOR SI4532DY-T1
Q607	8-729-824-34	s	TRANSISTOR 2SJ187
Q608	8-729-928-40	s	TRANSISTOR DTA144WE-TL
Q609	8-729-928-40	s	TRANSISTOR DTA144WE-TL
Q610	8-729-928-93	s	TRANSISTOR DTC144WE
Q611	8-729-045-28	s	TRANSISTOR SI4532DY-T1
Q701	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q702	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q703	8-729-105-08	s	TRANSISTOR 2SA1330-06
Q704	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q705	8-729-824-34	s	TRANSISTOR 2SJ187
Q706	8-729-105-36	s	TRANSISTOR 2SC3360-N15
Q707	8-729-105-36	s	TRANSISTOR 2SC3360-N15
Q708	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q709	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q710	8-729-105-36	s	TRANSISTOR 2SC3360-N15
Q711	8-729-105-36	s	TRANSISTOR 2SC3360-N15
Q712	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q713	8-729-209-07	s	TRANSISTOR 2SC4213-B
R101	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R104	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R105	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R106	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R107	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R108	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R109	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R110	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R111	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R112	1-218-733-11	s	RESISTOR,CHIP 51K 1/16W (1608)
R113	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R114	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R115	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R116	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R117	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R118	1-218-673-11	s	RESISTOR CHIP 160 1/16W (1608)
R119	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R120	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R121	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R122	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R123	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R124	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R125	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R126	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R127	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R128	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R130	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R131	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R132	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R133	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R134	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R135	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R136	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R137	1-218-695-11	s	RESISTOR,CHIP 1.3K 1/16W(1608)
R138	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R139	1-218-681-11	s	RESISTOR CHIP 360 1/16W (1608)
R140	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R142	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R143	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R144	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R146	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R147	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R148	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R149	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R150	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R151	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R152	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R153	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R154	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R155	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R200	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R201	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R202	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R203	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R204	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R205	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R206	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R207	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R208	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R209	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R210	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R211	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R212	1-218-733-11	s	RESISTOR,CHIP 51K 1/16W (1608)
R213	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R214	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R215	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R216	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R217	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R218	1-218-673-11	s	RESISTOR CHIP 160 1/16W (1608)
R219	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R220	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R221	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R222	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R223	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R224	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R225	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R226	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R227	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R228	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R229	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R230	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R231	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R232	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R233	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R234	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R235	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R236	1-218-695-11	s	RESISTOR,CHIP 1.3K 1/16W(1608)
R237	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R238	1-218-681-11	s	RESISTOR CHIP 360 1/16W (1608)
R239	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R241	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R242	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R243	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R245	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R246	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R247	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R248	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R249	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R250	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R251	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R252	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R253	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R254	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R255	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R256	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R257	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R258	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R259	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R260	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R261	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R262	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R263	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R264	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R265	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R268	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R269	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R270	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R271	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R272	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R273	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R274	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R275	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R276	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R277	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R278	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R279	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R301	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R304	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R305	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R307	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R308	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R309	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R310	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R312	1-218-733-11	s	RESISTOR,CHIP 51K 1/16W (1608)
R313	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R314	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R315	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R316	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R317	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R318	1-218-673-11	s	RESISTOR CHIP 160 1/16W (1608)
R319	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R320	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R321	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R322	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R323	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R324	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R325	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R326	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R327	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R328	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R329	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R330	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R331	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R333	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R334	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R335	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R336	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R337	1-218-695-11	s	RESISTOR,CHIP 1.3K 1/16W(1608)
R338	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R339	1-218-681-11	s	RESISTOR CHIP 360 1/16W (1608)
R340	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R342	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R343	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R344	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R346	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R347	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R348	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R349	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R350	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R351	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R352	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R353	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R401	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R404	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R405	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R407	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R408	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R409	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R410	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R412	1-218-733-11	s	RESISTOR,CHIP 51K 1/16W (1608)
R413	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R414	1-218-691-11	s	RESISTOR CHIP 910 1/16W (1608)
R415	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)

Ref. No. or Q'ty	Part No.	SP	Description
R416	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R417	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R418	1-218-673-11	s	RESISTOR CHIP 160 1/16W (1608)
R419	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R420	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R421	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R422	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R423	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R424	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R425	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R426	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R427	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R428	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R429	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R430	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R432	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R433	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R434	1-218-697-11	s	RESISTOR,CHIP 1.6K 1/16W(1608)
R435	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R436	1-218-695-11	s	RESISTOR,CHIP 1.3K 1/16W(1608)
R437	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R438	1-218-681-11	s	RESISTOR CHIP 360 1/16W (1608)
R439	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R441	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R442	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R443	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R445	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R446	1-218-752-11	s	RESISTOR,CHIP 330K 1/16W(1608)
R447	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R448	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R449	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R450	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R451	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R452	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R501	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R502	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R503	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R504	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R505	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R506	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R507	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R508	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R509	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R510	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R511	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R512	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R513	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R514	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R515	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R516	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R517	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R518	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R519	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R520	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R521	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R522	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R523	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R524	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R525	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R526	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R527	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R528	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R529	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R530	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R531	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R532	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R533	1-218-666-11	s	RESISTOR CHIP 82 1/16W (1608)
R534	1-216-822-11	s	RESISTOR, CHIP 1.2K 1/16W 1608
R535	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R536	1-216-822-11	s	RESISTOR, CHIP 1.2K 1/16W 1608
R537	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R538	1-216-822-11	s	RESISTOR, CHIP 1.2K 1/16W 1608
R539	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R540	1-216-822-11	s	RESISTOR, CHIP 1.2K 1/16W 1608
R541	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R542	1-216-832-11	s	RESISTOR,CHIP 8.2K 1/16W 1608
R543	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R544	1-216-832-11	s	RESISTOR,CHIP 8.2K 1/16W 1608
R545	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R546	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R547	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R548	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R549	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R550	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R551	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R552	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R553	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R554	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R555	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R556	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R557	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R558	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R559	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R560	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R561	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R562	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R563	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R564	1-218-698-11	s	RESISTOR,CHIP 1.8K 1/16W(1608)
R565	1-218-698-11	s	RESISTOR,CHIP 1.8K 1/16W(1608)
R566	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R567	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R568	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R569	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R570	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R571	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R572	1-218-705-11	s	RESISTOR,CHIP 3.6K 1/16W(1608)
R573	1-218-705-11	s	RESISTOR,CHIP 3.6K 1/16W(1608)
R574	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R575	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R576	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R577	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R578	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R579	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R580	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R581	1-218-711-11	s	RESISTOR,METAL 6.2K 1/16W
R582	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R583	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R584	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W

(EQ-76 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R585	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R586	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R587	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R588	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R589	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R590	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R591	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R592	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R593	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R594	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R595	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R596	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R601	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R602	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R603	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R604	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R605	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R606	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R607	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R608	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R609	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R610	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R611	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R612	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R613	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R614	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R615	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R616	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R617	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R618	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R619	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R620	1-218-682-11	s	RESISTOR CHIP 390 1/16W (1608)
R621	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R622	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R623	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R624	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R625	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R626	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R627	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R628	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R629	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R630	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R631	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R632	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R633	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R634	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R635	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R636	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R637	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R638	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R639	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R640	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R641	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R642	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R643	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R644	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R645	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R646	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R647	1-218-682-11	s	RESISTOR CHIP 390 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R648	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R649	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R650	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R651	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R652	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R653	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R654	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R655	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R656	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R657	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R658	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R659	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R660	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R661	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R662	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R663	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R664	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R665	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R666	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R667	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R701	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R702	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R703	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R704	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R705	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R706	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R707	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R708	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R709	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R710	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R711	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R712	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R713	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R714	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R715	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R716	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R717	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R718	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R719	1-218-726-11	s	RESISTOR CHIP 27K 1/16W (1608)
R720	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R721	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R722	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R723	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R724	1-218-698-11	s	RESISTOR,CHIP 1.8K 1/16W(1608)
R725	1-216-117-00	s	RESISTOR,CHIP 680K 1/10W(2012)
R726	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R727	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R728	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R729	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R730	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R731	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R732	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R733	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R734	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R735	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R736	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R737	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R739	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R740	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)

Ref. No. or Q'ty	Part No.	SP	Description
R741	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R742	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R743	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R744	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R745	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R746	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R747	1-218-750-11	s	RESISTOR,CHIP 270K 1/16W(1608)
R748	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R749	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R750	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R751	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R752	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R753	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R754	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
RB102	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB103	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB104	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB105	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB106	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB202	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB203	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB204	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB205	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB206	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB302	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB303	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB304	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB305	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB306	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB402	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB403	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB404	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB405	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB406	1-239-412-11	s	NETWORK, RESISTOR 100 (1608)
RB601	1-236-904-11	s	RESISTOR NETWORK 1K (1608)
RV103	1-237-032-11	s	RESISTOR,ADJ,CERMET 500
RV200	1-237-029-11	s	RESISTOR,ADJ,CERMET 50
RV201	1-237-029-11	s	RESISTOR,ADJ,CERMET 50
RV202	1-237-029-11	s	RESISTOR,ADJ,CERMET 50
RV203	1-237-032-11	s	RESISTOR,ADJ,CERMET 500
RV204	1-237-029-11	s	RESISTOR,ADJ,CERMET 50
RV303	1-237-032-11	s	RESISTOR,ADJ,CERMET 500
RV403	1-237-032-11	s	RESISTOR,ADJ,CERMET 500
RV501	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV502	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV701	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
RV703	1-237-037-11	s	RESISTOR,ADJ,CERMET 20K
RV704	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
RV705	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
S601	1-570-598-11	s	SWITCH,DIP (4P)

FU-76 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-357-A	o	MOUNTED CIRCUIT BOARD, FU-76
6pcs	1-533-189-11	s	HOLDER, FUSE
1pc	3-622-892-01	o	BRAKET,PANEL
4pcs	7-681-000-00	s	SCREW,+PWH M2X5(EP-FE/ZN/CM2)
2pcs	7-682-902-11	s	SCREW +PWH 2.6X5(EP-FE/ZN/CM2)
C1	1-164-182-11	s	CAPACITOR,CHIP CERAMIC 3300(M-
C2	1-127-519-11	s	CAPACITOR,ELECT 100MF/20V
C3	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C4	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C6	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
CN441	1-695-915-11	s	TAB (CONTACT)
CN442	1-695-915-11	s	TAB (CONTACT)
CN444	1-764-101-11	s	PIN, CONNECTOR (PC BOARD) 2P
CN445	1-566-758-11	o	PIN,CONNECTOR 3P
CN446	1-566-761-11	o	PIN,CONNECTOR (PC BOARD) 6P
CN447	1-695-915-11	s	TAB (CONTACT)
CN448	1-695-915-11	s	TAB (CONTACT)
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-801-78	s	DIODE 1SS184
D3	8-719-801-78	s	DIODE 1SS184
D4	8-719-158-15	s	DIODE RD5.6SB
F1	⚠ 1-532-747-11	s	FUSE,GLASS 5A/125V (20MM)
F2	⚠ 1-576-048-11	s	FUSE,GLASS 10A/125V(20MM)
F3	⚠ 1-532-747-11	s	FUSE,GLASS 5A/125V (20MM)
IC1	8-759-560-89	s	IC MB3761PF-ER
Q1	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q2	8-729-117-32	s	TRANSISTOR 2SC4177
Q3	8-729-117-32	s	TRANSISTOR 2SC4177
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-046-69	s	TRANSISTOR 2SK2956
Q6	8-729-046-69	s	TRANSISTOR 2SK2956
Q7	8-729-046-69	s	TRANSISTOR 2SK2956
Q8	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q9	8-729-046-69	s	TRANSISTOR 2SK2956
Q10	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q11	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
R1	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R2	1-216-692-11	s	RESISTOR CHIP 51K 1/10W (2012)
R3	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R4	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R5	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R6	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R7	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R8	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R9	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R10	1-216-676-11	s	RESISTOR,CHIP 11K 1/10W(2012)
R12	1-218-770-11	s	RESISTOR,CHIP 560K 1/10W(2012)
R13	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R14	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R15	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R16	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R17	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R18	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R19	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R20	1-218-772-11	s	RESISTOR,CHIP 680K 1/10W(2012)
R21	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R22	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R23	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R24	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R25	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R26	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R27	1-218-776-11	s	RESISTOR CHIP 1M 1/10W (2012)
R28	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R29	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R30	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R31	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R33	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R34	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R35	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R36	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
RV1	1-237-033-11	s	RESISTOR,ADJ,CERMET 1K

KY-315 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-948-A	o	MOUNTED CIRCUIT BOARD, KY-315
1pc	3-169-546-02	o	HOLDER, LCD
C1	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C2	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C3	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C4	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C5	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C6	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C7	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C8	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C9	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
CN461	1-566-766-11	o	PIN CONNECTOR PC BOARD 11P
CN462	1-566-765-11	o	PIN,CONNECTOR 10P
CN463	1-566-765-11	o	PIN,CONNECTOR 10P
D1	8-719-941-09	s	DIODE DAP202U
D2	8-719-941-09	s	DIODE DAP202U
D3	8-719-941-09	s	DIODE DAP202U
D4	8-719-941-09	s	DIODE DAP202U
D5	8-719-941-09	s	DIODE DAP202U
D6	8-719-941-09	s	DIODE DAP202U
D7	8-719-941-09	s	DIODE DAP202U
D8	8-719-941-09	s	DIODE DAP202U
D9	8-719-941-09	s	DIODE DAP202U
D10	8-719-941-09	s	DIODE DAP202U
D11	8-719-941-09	s	DIODE DAP202U
D12	8-719-941-09	s	DIODE DAP202U
D13	8-719-941-09	s	DIODE DAP202U
D14	8-719-941-09	s	DIODE DAP202U
D15	8-719-941-09	s	DIODE DAP202U
D16	8-719-941-09	s	DIODE DAP202U
D17	8-719-941-09	s	DIODE DAP202U
D18	8-719-941-09	s	DIODE DAP202U
D19	8-719-941-09	s	DIODE DAP202U
D20	8-719-941-09	s	DIODE DAP202U
D21	8-719-941-09	s	DIODE DAP202U
D22	8-719-109-51	s	DIODE RD2.0ESB2
D23	8-719-941-23	s	DIODE DA204U
D24	1-809-346-11	s	LED ARRAY
D25	1-809-346-11	s	LED ARRAY
D26	9-910-999-33	s	DELETED FROM RP MASTER
D27	9-910-999-33	s	DELETED FROM RP MASTER
D28	1-809-346-11	s	LED ARRAY
D29	1-809-346-11	s	LED ARRAY
D30	8-719-059-71	s	DIODE BR5305S
D31	1-809-346-11	s	LED ARRAY
D32	1-809-346-11	s	LED ARRAY
D33	8-719-902-27	s	LED EBR3402S
D34	9-910-999-33	s	DELETED FROM RP MASTER
D35	9-910-999-33	s	DELETED FROM RP MASTER
D36	8-719-902-27	s	LED EBR3402S
D37	8-719-902-27	s	LED EBR3402S
D38	9-910-999-33	s	DELETED FROM RP MASTER
IC1	8-759-246-16	s	IC TC9240F
IC2	8-759-932-10	s	IC MB88306PF
IC3	8-759-932-10	s	IC MB88306PF
IC4	8-759-926-25	s	IC SN74HC165ANS
L1	1-408-789-21	s	CHIP INDUCTOR 100UH (4532)
ND1	1-809-345-11	s	DISPLAY PANEL, LIQUID CRYSTAL
Q2	8-729-023-22	s	TRANSISTOR 2SD2114K
Q3	8-729-023-22	s	TRANSISTOR 2SD2114K
R1	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R2	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R3	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R4	1-216-059-00	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R5	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R6	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R7	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R8	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R10	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R11	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R12	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R13	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R14	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R15	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R16	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R17	1-216-059-00	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R18	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R20	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R21	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R22	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R23	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R24	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R25	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R26	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R27	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R28	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R29	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R30	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R31	1-208-769-11	s	RESISTOR,CHIP 300 1/10W (2012)
R32	1-208-769-11	s	RESISTOR,CHIP 300 1/10W (2012)
R33	1-208-769-11	s	RESISTOR,CHIP 300 1/10W (2012)
R34	1-208-769-11	s	RESISTOR,CHIP 300 1/10W (2012)
R35	1-208-769-11	s	RESISTOR,CHIP 300 1/10W (2012)
R36	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R37	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R38	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R40	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R41	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R42	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R43	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R44	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R45	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R46	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R47	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
S1	1-572-725-11	s	SWITCH,TACTILE
S2	1-572-725-11	s	SWITCH,TACTILE
S3	1-572-725-11	s	SWITCH,TACTILE
S4	1-572-725-11	s	SWITCH,TACTILE
S5	1-572-725-11	s	SWITCH,TACTILE
S6	1-572-725-11	s	SWITCH,TACTILE
S7	1-572-725-11	s	SWITCH,TACTILE
S8	1-572-725-11	s	SWITCH,TACTILE
S9	1-572-725-11	s	SWITCH,TACTILE
S10	1-572-725-11	s	SWITCH,TACTILE

(KY-315 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
S11	1-572-725-11	s	SWITCH,TACTILE
S12	1-572-725-11	s	SWITCH,TACTILE
S13	1-572-725-11	s	SWITCH,TACTILE
S14	1-572-725-11	s	SWITCH,TACTILE
S15	1-572-725-11	s	SWITCH,TACTILE
S16	1-572-725-11	s	SWITCH,TACTILE
S17	1-572-725-11	s	SWITCH,TACTILE
S18	1-553-977-00	s	SWITCH,SLIDE (2-1-2)
S19	1-553-977-00	s	SWITCH,SLIDE (2-1-2)
S20	1-570-724-11	s	SWITCH,SLIDE (1-1-3)
S21	1-570-724-11	s	SWITCH,SLIDE (1-1-3)
S22	1-553-977-00	s	SWITCH,SLIDE (2-1-2)
S23	1-570-337-11	s	SWITCH,ROTARY(SEXADECIMAL)
S24	1-570-337-11	s	SWITCH,ROTARY(SEXADECIMAL)
S25	1-553-977-00	s	SWITCH,SLIDE (2-1-2)
S26	1-553-977-00	s	SWITCH,SLIDE (2-1-2)
S27	1-570-854-11	s	SWITCH, SLIDE (1-1-3)
S28	1-554-377-21	s	SWITCH,SLIDE
S29	1-570-851-11	s	SWITCH,SLIDE (1-1-3)

MB-825 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-338-A	o	MOUNTED CIRCUIT BOARD, MB-825
C903	1-110-985-11	s	CAPACITOR, ELECT 1200MF/6.3V
C904	1-110-988-11	s	CAPACITOR,ELECT 2200MF/6.3V
CN901	1-774-263-11	s	CONNECTOR, BOARD TO BOARD 20P
CN902	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN903	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN904	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN905	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN906	1-774-263-11	s	CONNECTOR, BOARD TO BOARD 20P
CN907	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN908	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN909	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN910	1-774-262-11	s	CONNECTOR, BOARD TO BOARD 18P
CN911	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN912	1-774-263-11	s	CONNECTOR, BOARD TO BOARD 20P
CN913	1-774-265-11	s	CONNECTOR, BOARD TO BOARD 30P
CN914	1-770-457-11	o	CONNECTOR (S.S), TX 60P
CN915	1-566-757-11	s	PIN, CONNECTOR (PC BOARD) 2P
CN916	1-566-758-11	o	PIN,CONNECTOR 3P
CN921	1-565-884-11	o	PIN, CONNECTOR (PC BOARD) 12P
CN931	1-535-894-11	o	TAB(PC BOARD)
CN932	1-535-894-11	o	TAB(PC BOARD)
CN941	1-566-763-11	o	PIN,CONNECTOR (PC BOARD) 8P
CN942	1-506-468-11	s	PIN,CONNECTOR 3P
CN943	1-506-467-11	s	PIN,CONNECTOR 2P
CN944	1-506-467-11	s	PIN,CONNECTOR 2P
CN946	1-506-467-11	s	PIN,CONNECTOR 2P
CN947	1-506-468-11	s	PIN,CONNECTOR 3P
CN949	1-564-005-11	o	PIN, CONNECTOR 6P
CN951	1-506-467-11	s	PIN,CONNECTOR 2P
CN952	1-506-468-11	s	PIN,CONNECTOR 3P
CN953	1-564-002-11	s	PIN, CONNECTOR 3P
CN954	1-506-469-11	s	PIN,CONNECTOR 4P
CN955	1-506-468-11	s	PIN,CONNECTOR 3P
CN956	1-506-468-11	s	PIN,CONNECTOR 3P
CN957	1-506-472-11	o	PIN,CONNECTOR 7P
CN958	1-506-467-11	s	PIN,CONNECTOR 2P
CN960	1-564-001-11	o	PIN, CONNECTOR 2P
E1	3-657-235-00	o	TEST POINT
E2	3-657-235-00	o	TEST POINT
TP1	3-657-235-00	o	TEST POINT
TP2	3-657-235-00	o	TEST POINT
TP3	3-657-235-00	o	TEST POINT
TP4	3-657-235-00	o	TEST POINT
TP5	3-657-235-00	o	TEST POINT
TP6	3-657-235-00	o	TEST POINT
TP7	3-657-235-00	o	TEST POINT
TP8	3-657-235-00	o	TEST POINT
TP9	3-657-235-00	o	TEST POINT
TP10	3-657-235-00	o	TEST POINT
TP11	3-657-235-00	o	TEST POINT
TP12	3-657-235-00	o	TEST POINT
TP13	3-657-235-00	o	TEST POINT
TP14	3-657-235-00	o	TEST POINT
TP15	3-657-235-00	o	TEST POINT
TP16	3-657-235-00	o	TEST POINT

PSW-67 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
2pcs	2-389-320-01	o	CUSHION (SILICONE RBR)
C1	1-127-519-11	s	CAPACITOR,ELECT 100MF/20V
C2	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C3	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C4	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C5	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C6	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C7	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C8	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C9	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C10	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C11	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C12	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C13	1-127-518-11	s	CAPACITOR,ELECT 100MF/16V
C14	1-127-518-11	s	CAPACITOR,ELECT 100MF/16V
C15	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C16	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C17	1-115-732-11	s	CAPACITOR ELECT 330MF/10V 105C
C18	1-115-732-11	s	CAPACITOR ELECT 330MF/10V 105C
C19	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C20	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C21	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C22	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C23	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C24	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C25	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C26	1-113-577-11	s	CAPACITOR,ELECT 47MF/16V
C27	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C28	1-111-134-11	s	CAPACITOR ELECT 27MF/63V
C29	1-111-037-11	s	CAPACITOR,ELECT 270MF/16V
C30	1-127-518-11	s	CAPACITOR,ELECT 100MF/16V
C31	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C32	1-111-134-11	s	CAPACITOR ELECT 27MF/63V
C33	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C34	1-111-032-11	s	CAPACITOR,ELECT 120MF/16V(105)
C35	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C36	1-104-919-11	s	CAPASITOR TANTALLUM 10MF/25V
CN602	1-695-915-11	s	TAB (CONTACT)
CN603	1-566-567-11	o	CONNECTOR 60P
CN604	1-766-745-11	o	CONNECTOR, BOARD TO BOARD 12P
CN605	1-766-745-11	o	CONNECTOR, BOARD TO BOARD 12P
CN606	1-766-745-11	o	CONNECTOR, BOARD TO BOARD 12P
D1	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D2	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D3	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D4	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D5	8-719-104-34	s	DIODE 1S2836
D6	8-719-048-17	s	DIODE MBRS130LT3
D7	8-719-989-93	s	DIODE SB01-15CP
D8	8-719-048-17	s	DIODE MBRS130LT3
D9	8-719-104-34	s	DIODE 1S2836
D10	8-719-023-54	s	DIODE EA60QC06-F
IC1	8-759-523-78	s	IC TC74VHC00FT(EL)
IC2	8-759-710-88	s	IC NJM431U
L1	1-409-579-11	s	COIL, CHOKE 8.2UH
L2	1-409-579-11	s	COIL, CHOKE 8.2UH
L3	1-409-721-11	s	COIL, CHOKE 42UH
L4	1-411-967-11	s	COIL, CHOKE 33UH
L5	1-424-667-11	s	COIL, CHOKE 1UH
L6	1-421-459-21	s	COIL,CHOKE
L7	1-409-579-11	s	COIL, CHOKE 8.2UH
L8	1-409-579-11	s	COIL, CHOKE 8.2UH
L9	1-409-579-11	s	COIL, CHOKE 8.2UH
L10	1-409-722-11	s	COIL, CHOKE 220UH
L11	1-424-642-11	s	COIL,CHOKE (SHIELD)
L12	1-409-722-11	s	COIL, CHOKE 220UH
L13	1-409-579-11	s	COIL, CHOKE 8.2UH
L14	1-409-579-11	s	COIL, CHOKE 8.2UH
Q1	8-729-012-35	s	FET 2SK711-BL
Q2	8-729-012-35	s	FET 2SK711-BL
Q3	8-729-048-69	s	TRANSISTOR 2SJ530S-TL
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q5	8-729-112-65	s	TRANSISTOR 2SA1462
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-112-65	s	TRANSISTOR 2SA1462
Q8	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q9	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q10	8-729-047-85	s	TRANSISTOR SI4416DY-T1
Q11	8-729-047-85	s	TRANSISTOR SI4416DY-T1
Q12	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q13	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q14	8-729-112-65	s	TRANSISTOR 2SA1462
Q15	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q16	8-729-112-65	s	TRANSISTOR 2SA1462
Q17	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q18	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q19	8-729-112-65	s	TRANSISTOR 2SA1462
Q20	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q21	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q22	8-729-040-83	s	TRANSISTOR SI4450DY-T1
Q23	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q24	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
R1	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R2	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R3	1-216-089-91	s	RESISTOR, CHIP 47K
R4	1-216-689-11	s	RESISTOR,CHIP 39K 1/10W(2012)
R5	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R6	1-216-689-11	s	RESISTOR,CHIP 39K 1/10W(2012)
R7	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R8	1-216-619-11	s	RESISTOR CHIP 47 1/10W(2012)
R9	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R10	1-216-619-11	s	RESISTOR CHIP 47 1/10W(2012)
R11	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R12	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R13	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R14	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R15	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R16	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R17	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R18	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R19	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R20	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R21	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R22	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R23	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)

(PSW-67 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R24	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R25	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R26	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R27	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R28	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R29	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R30	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R31	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R32	1-216-693-11	s	RESISTOR CHIP 56K 1/10W (2012)
R33	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R34	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R35	1-216-661-11	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R36	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R37	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R38	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R39	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R40	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R41	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R42	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R43	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R44	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R45	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R46	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R47	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)

PSW-68 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
5pcs	2-389-320-01	o	CUSHION (SILICONE RBR)
C1	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C2	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C3	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C4	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C5	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C6	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C7	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C8	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C9	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C10	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C11	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C12	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C13	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C14	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C15	1-127-518-11	s	CAPACITOR,ELECT 100MF/16V
C16	1-113-577-11	s	CAPACITOR,ELECT 47MF/16V
C17	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C18	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C19	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C20	1-115-732-11	s	CAPACITOR ELECT 330MF/10V 105C
C21	1-111-034-11	s	CAPACITOR,ELECT 220MF/16V(105C
C22	1-113-577-11	s	CAPACITOR,ELECT 47MF/16V
C24	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C25	1-115-733-11	s	CAPACITOR ELECT 470MF/10V 105C
C27	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C28	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C29	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C30	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C31	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C32	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C33	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C34	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C35	1-127-513-00	s	CAPACITOR,ELECT 15MF/25V
C36	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C37	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C38	1-127-518-11	s	CAPACITOR,ELECT 100MF/16V
C39	1-127-518-11	s	CAPACITOR,ELECT 100MF/16V
C40	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C41	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C42	1-115-733-11	s	CAPACITOR ELECT 470MF/10V 105C
C43	1-115-733-11	s	CAPACITOR ELECT 470MF/10V 105C
C44	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C45	1-115-733-11	s	CAPACITOR ELECT 470MF/10V 105C
C46	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C47	1-115-733-11	s	CAPACITOR ELECT 470MF/10V 105C
CN604	1-766-745-11	o	CONNECTOR, BOARD TO BOARD 12P
CN607	1-766-745-11	o	CONNECTOR, BOARD TO BOARD 12P
CN608	1-766-745-11	o	CONNECTOR, BOARD TO BOARD 12P
CN609	1-564-013-11	o	PIN,CONNECTOR 3P
D1	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D2	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D3	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D4	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D5	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D6	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D8	8-719-104-34	s	DIODE 1S2836
D9	8-719-938-75	s	DIODE SB05-05CP (RECTI)

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Ref. No. or Q'ty	Part No.	SP	Description
D10	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D11	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D12	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D13	8-719-104-34	s	DIODE 1S2836
L1	1-409-579-11	s	COIL, CHOKE 8.2UH
L2	1-409-579-11	s	COIL, CHOKE 8.2UH
L3	1-409-579-11	s	COIL, CHOKE 8.2UH
L4	1-409-721-11	s	COIL, CHOKE 42UH
L5	1-409-721-11	s	COIL, CHOKE 42UH
L6	1-411-968-11	s	COIL, CHOKE 33UH
L7	1-421-459-21	s	COIL,CHOKE
L8	1-421-459-21	s	COIL,CHOKE
L9	1-421-459-21	s	COIL,CHOKE
L10	1-409-579-11	s	COIL, CHOKE 8.2UH
L11	1-409-579-11	s	COIL, CHOKE 8.2UH
L12	1-411-967-11	s	COIL, CHOKE 33UH
L13	1-411-967-11	s	COIL, CHOKE 33UH
L14	1-421-459-21	s	COIL,CHOKE
L15	1-421-459-21	s	COIL,CHOKE
L16	1-421-459-21	s	COIL,CHOKE
L17	1-421-459-21	s	COIL,CHOKE
Q1	8-729-012-35	s	FET 2SK711-BL
Q2	8-729-012-35	s	FET 2SK711-BL
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-112-65	s	TRANSISTOR 2SA1462
Q5	8-729-012-35	s	FET 2SK711-BL
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-112-65	s	TRANSISTOR 2SA1462
Q8	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q9	8-729-112-65	s	TRANSISTOR 2SA1462
Q10	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q11	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q12	8-729-047-85	s	TRANSISTOR SI4416DY-T1
Q13	8-729-047-85	s	TRANSISTOR SI4416DY-T1
Q14	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q15	8-729-047-85	s	TRANSISTOR SI4416DY-T1
Q16	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q17	8-729-012-35	s	FET 2SK711-BL
Q18	8-729-012-35	s	FET 2SK711-BL
Q19	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q20	8-729-112-65	s	TRANSISTOR 2SA1462
Q21	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q22	8-729-112-65	s	TRANSISTOR 2SA1462
Q23	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q24	8-729-043-74	s	TRANSISTOR SI4435DY-T1-REVA
Q25	8-729-047-85	s	TRANSISTOR SI4416DY-T1
Q26	8-729-047-85	s	TRANSISTOR SI4416DY-T1
Q27	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q28	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R1	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R2	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R3	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R4	1-216-689-11	s	RESISTOR,CHIP 39K 1/10W(2012)
R5	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R6	1-216-689-11	s	RESISTOR,CHIP 39K 1/10W(2012)
R7	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R8	1-216-619-11	s	RESISTOR CHIP 47 1/10W(2012)
R9	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)

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Ref. No. or Q'ty	Part No.	SP	Description
R10	1-216-619-11	s	RESISTOR CHIP 47 1/10W(2012)
R11	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R12	1-216-689-11	s	RESISTOR,CHIP 39K 1/10W(2012)
R13	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R14	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R15	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R16	1-216-619-11	s	RESISTOR CHIP 47 1/10W(2012)
R17	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R18	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R19	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R20	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R21	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R24	1-216-677-11	s	RESISTOR,CHIP 12K 1/10W(2012)
R25	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R26	1-216-679-11	s	RESISTOR CHIP 15K 1/10W (2012)
R27	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R28	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R29	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R30	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R31	1-216-679-11	s	RESISTOR CHIP 15K 1/10W (2012)
R32	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R33	1-216-689-11	s	RESISTOR,CHIP 39K 1/10W(2012)
R34	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R35	1-216-619-11	s	RESISTOR CHIP 47 1/10W(2012)
R36	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R37	1-216-619-11	s	RESISTOR CHIP 47 1/10W(2012)
R38	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R39	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R40	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R41	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R42	1-216-684-91	s	RESISTOR METAL FILM CHIP 24K
R43	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R44	1-216-684-91	s	RESISTOR METAL FILM CHIP 24K
R45	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R46	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R47	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R48	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R49	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R50	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R51	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R52	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R53	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R54	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R55	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)

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Ref. No. or Q'ty	Part No.	SP	Description
C1	1-126-155-11	s	CAPACITOR,ELECT 100MF/6.3V
C2	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C3	1-104-919-11	s	CAPASITOR TANTALLUM 10MF/25V
C4	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C5	1-104-478-11	s	CAPACITOR TANTALUM 10MF/35V
C6	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C8	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C9	1-163-009-11	s	CAPACITOR,CHIP CERAMIC 1000PF
C10	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C11	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C12	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C13	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C14	1-163-133-00	s	CAPACITOR,CHIP CERAMIC 470PF
C15	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C16	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C17	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C18	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C19	1-163-989-11	s	CAPACITOR,CHIP CERAMIC 0.033M
C20	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C21	1-135-210-11	s	CAPACITOR TANTAL 4.7MF/10V
C22	1-135-210-11	s	CAPACITOR TANTAL 4.7MF/10V
C23	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C24	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C25	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C26	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C27	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C28	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C29	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C30	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C31	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C32	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C33	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C34	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C35	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C36	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C37	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C38	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C39	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C40	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C41	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C42	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C43	1-163-989-11	s	CAPACITOR,CHIP CERAMIC 0.033M
C44	1-163-989-11	s	CAPACITOR,CHIP CERAMIC 0.033M
C45	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C46	1-135-210-11	s	CAPACITOR TANTAL 4.7MF/10V
C47	1-135-210-11	s	CAPACITOR TANTAL 4.7MF/10V
C48	1-135-210-11	s	CAPACITOR TANTAL 4.7MF/10V
C49	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C50	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C51	1-115-339-11	s	CAPACITOR CERAMIC 0.1MF/50V
C52	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C53	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C54	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C55	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
CN605	1-766-746-11	o	CONNECTOR, BOARD TO BOARD 12P
CN606	1-766-746-11	o	CONNECTOR, BOARD TO BOARD 12P
CN607	1-766-746-11	o	CONNECTOR, BOARD TO BOARD 12P
CN608	1-766-746-11	o	CONNECTOR, BOARD TO BOARD 12P

Ref. No. or Q'ty	Part No.	SP	Description
D1	8-719-104-34	s	DIODE 1S2836
D2	8-719-104-34	s	DIODE 1S2836
IC1	8-759-710-88	s	IC NJM431U
IC2	8-759-560-89	s	IC MB3761PF-ER
IC4	8-759-261-48	s	IC TL1451ACPW (R)
IC5	8-759-261-48	s	IC TL1451ACPW (R)
IC6	8-759-261-48	s	IC TL1451ACPW (R)
IC7	8-759-261-48	s	IC TL1451ACPW (R)
IC8	8-759-261-48	s	IC TL1451ACPW (R)
Q1	8-729-118-56	s	FET 2SK852-X2
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q5	8-729-027-38	s	TRANSISTOR DTA144EAK-T146
Q6	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q7	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q8	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q9	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q11	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q12	8-729-027-38	s	TRANSISTOR DTA144EAK-T146
Q13	8-729-027-44	s	TRANSISTOR DTC114TKA-T146
Q14	8-729-027-44	s	TRANSISTOR DTC114TKA-T146
Q15	8-729-027-44	s	TRANSISTOR DTC114TKA-T146
R1	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R2	1-216-686-11	s	RESISTOR, METAL FILM 30K 1/10W
R3	1-216-674-11	s	RESISTOR,CHIP 9.1K 1/10W(2012)
R4	1-216-696-11	s	RESISTOR,CHIP 75K 1/10W(2012)
R5	1-216-677-11	s	RESISTOR,CHIP 12K 1/10W(2012)
R6	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R7	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R8	1-216-686-11	s	RESISTOR, METAL FILM 30K 1/10W
R9	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R10	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R11	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R12	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R14	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R16	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R17	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R18	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R19	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R20	1-216-661-11	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R21	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R22	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R23	1-216-637-11	s	RESISTOR,CHIP 270 1/10W (2012)
R24	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R25	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R26	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R27	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R28	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R29	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R30	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R31	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R32	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R33	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R34	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R35	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R36	1-216-662-11	s	RESISTOR,CHIP 3K 1/10W (2012)
R37	1-216-641-11	s	RESISTOR,CHIP 390 1/10W(2012)

Ref. No. or Q'ty	Part No.	SP	Description
R38	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R39	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R40	1-218-758-11	s	RESISTOR,CHIP 180K 1/10W(2012)
R41	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R42	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R43	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R44	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R45	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R46	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R47	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R48	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R49	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R50	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R51	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R52	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R53	1-216-670-11	s	RESISTOR,CHIP 6.2K 1/10W(2012)
R54	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R55	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R56	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R57	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R58	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R59	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R60	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R61	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R62	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R63	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R64	1-216-677-11	s	RESISTOR,CHIP 12K 1/10W(2012)
R65	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R66	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R67	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R68	1-216-629-11	s	RESISTOR,CHIP 120 1/10W (2012)
R69	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R70	1-216-677-11	s	RESISTOR,CHIP 12K 1/10W(2012)
R71	1-216-677-11	s	RESISTOR,CHIP 12K 1/10W(2012)
R72	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R73	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R74	1-216-642-11	s	RESISTOR,CHIP 430 1/10W (2012)
R75	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R76	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R77	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R78	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R79	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R80	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R81	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R82	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R83	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R84	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R85	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R86	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R87	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R88	1-216-657-11	s	RESISTOR,CHIP 1.8K 1/10W (2012)
R89	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R90	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R91	1-216-658-11	s	RESISTOR,CHIP 2K 1/10W(2012)
R92	1-216-641-11	s	RESISTOR,CHIP 390 1/10W(2012)
R93	1-216-679-11	s	RESISTOR CHIP 15K 1/10W (2012)
R94	1-216-674-11	s	RESISTOR,CHIP 9.1K 1/10W(2012)
R95	1-216-645-11	s	RESISTOR,CHIP 560 1/10W (2012)
R96	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)

Ref. No. or Q'ty	Part No.	SP	Description
R97	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R98	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R99	1-216-649-11	s	RESISTOR,CHIP 820 1/10W (2012)
R100	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R101	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R102	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R103	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R104	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R105	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R106	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R107	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R108	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R109	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R110	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R111	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R112	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R113	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R114	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R115	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R116	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R117	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R118	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R119	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R120	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R121	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R122	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R123	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R124	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R125	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R126	1-216-627-11	s	RESISTOR,CHIP 100 1/10W (2012)
R127	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R129	1-216-626-11	s	RESISTOR,CHIP 91 1/10W(2125)
R130	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)

PSW-70 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
CN1	1-766-746-11	o	CONNECTOR, BOARD TO BOARD 12P
CN2	1-766-746-11	o	CONNECTOR, BOARD TO BOARD 12P

SE-435A BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-669-823-11	o	PRINTED WIRING BOARD, SE-435
1pc	3-202-413-01	o	LABEL, SERVICE PARTS-NO
C1	1-164-379-11	s	CAPACITOR,CERAMIC 43PF/50V CH
C2	1-164-379-11	s	CAPACITOR,CERAMIC 43PF/50V CH
C3	1-162-922-11	s	CAPACITOR,CERAMIC 39PF/50V CH
C4	1-162-922-11	s	CAPACITOR,CERAMIC 39PF/50V CH
CN1	1-774-792-21	s	CONNECTOR, FPC/FFC (4P)

SE-510 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-673-075-11	o	PRINTED WIRING BOARD, SE-510
CN1	1-764-007-11	o	PIN, CONNECTOR (SMD) 12P
S1	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S4	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S5	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S6	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S7	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S8	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S9	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S10	1-572-719-11	s	SWITCH,PUSH(1 KEY)
S11	1-572-719-11	s	SWITCH,PUSH(1 KEY)

SST-13 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-354-A	o	MOUNTED CIRCUIT BOARD, SST-13
1pc	3-709-100-01	o	COVER, IC SOCKET
1pc	3-701-991-01	o	BAND, BINDING (PLA)
1pc	1-767-156-11	s	OSCILLATOR,CRYSTAL(IN BATTERY)
C100	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C101	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C102	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C103	1-163-133-00	s	CAPACITOR,CHIP CERAMIC 470PF
C104	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C105	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C106	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C107	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C108	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C109	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C110	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C111	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C112	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C113	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C114	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C115	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C116	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C117	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C118	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C119	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C120	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C200	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C201	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C202	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C203	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C204	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C205	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C206	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C207	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C208	1-104-919-11	s	CAPASITOR TANTALLUM 10MF/25V
C209	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C210	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C211	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C212	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C213	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C214	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C215	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C216	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C300	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C301	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C302	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C303	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C304	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C305	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C306	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C308	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C309	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C310	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C312	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C313	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C314	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C400	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C401	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C403	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V

Ref. No. or Q'ty	Part No.	SP	Description
C404	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C405	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C406	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C407	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C408	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C409	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C410	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C412	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C500	1-163-239-11	s	CAPACITOR CHIP CERAMIC 33PF/50
C501	1-163-239-11	s	CAPACITOR CHIP CERAMIC 33PF/50
C502	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C503	1-113-642-11	s	CAPACITOR, TANTALUM 47MF/10V
C504	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C505	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C506	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C507	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C508	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C509	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C510	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C511	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C512	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C513	1-163-235-11	s	CAPACITOR,CHIP CERAMIC 22PF/50
C514	1-163-235-11	s	CAPACITOR,CHIP CERAMIC 22PF/50
C515	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C517	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C518	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C521	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C522	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C524	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C525	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C526	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C600	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C601	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C602	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C603	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C604	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C605	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C606	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C607	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C608	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C609	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C610	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C611	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C612	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C613	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C614	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C615	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C616	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C617	1-163-143-00	s	CAPACITOR,CHIP CERAMIC 1200PF
C618	1-163-143-00	s	CAPACITOR,CHIP CERAMIC 1200PF
C619	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C620	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C621	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C622	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C623	1-163-263-11	s	CAPACITOR CERAMIC 330PF/50V
C624	1-163-263-11	s	CAPACITOR CERAMIC 330PF/50V
C625	1-163-091-00	s	CAPACITOR,CHIP CERAMIC 8PF/50V
C626	1-163-091-00	s	CAPACITOR,CHIP CERAMIC 8PF/50V

Ref. No. or Q'ty	Part No.	SP	Description
C627	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C628	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C629	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C630	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C631	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C632	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C633	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C634	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C635	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C636	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C637	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C638	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C639	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C640	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C641	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C642	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C643	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C644	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C645	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C646	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C647	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C648	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C649	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C650	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C651	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C652	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C653	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C700	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C701	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C702	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C703	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C704	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C706	1-163-113-00	s	CAPACITOR,CHIP CERAMIC 68PF/50
C707	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C708	1-163-113-00	s	CAPACITOR,CHIP CERAMIC 68PF/50
C709	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C710	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C711	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C712	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C713	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C714	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C715	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C716	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C717	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C718	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C719	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C720	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C721	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C722	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C723	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C800	1-115-185-11	s	CAP CERAMIC 0.033MF/50V(2012)
C801	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C802	1-115-185-11	s	CAP CERAMIC 0.033MF/50V(2012)
C803	1-163-121-00	s	CAPACITOR,CHIP CERAMIC 150PF
C804	1-115-185-11	s	CAP CERAMIC 0.033MF/50V(2012)
C805	1-115-185-11	s	CAP CERAMIC 0.033MF/50V(2012)
C806	1-163-127-00	s	CAPACITOR,CHIP CERAMIC 270PF
C807	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C808	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF

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Ref. No. or Q'ty	Part No.	SP	Description
C809	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C810	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C811	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C812	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C813	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C814	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C815	1-163-127-00	s	CAPACITOR,CHIP CERAMIC 270PF
C816	1-113-340-11	s	CAPACITOR, ELECT 47MF
C817	1-164-690-11	s	CAPACITOR ,CERAMIC 2200PF CH
C818	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C819	1-113-340-11	s	CAPACITOR, ELECT 47MF
C820	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C821	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C822	1-113-340-11	s	CAPACITOR, ELECT 47MF
C823	1-113-340-11	s	CAPACITOR, ELECT 47MF
C824	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C825	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C826	1-115-185-11	s	CAP CERAMIC 0.033MF/50V(2012)
C827	1-115-185-11	s	CAP CERAMIC 0.033MF/50V(2012)
C828	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C829	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C830	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C831	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C832	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C833	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C834	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C835	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C836	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C837	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C838	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C839	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C840	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C841	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C842	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C843	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C844	1-113-340-11	s	CAPACITOR, ELECT 47MF
C845	1-113-340-11	s	CAPACITOR, ELECT 47MF
C846	1-113-340-11	s	CAPACITOR, ELECT 47MF
C847	1-113-340-11	s	CAPACITOR, ELECT 47MF
C848	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C849	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C850	1-126-791-11	s	CAPACITOR,ELECT 10MF/35V
C851	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C900	1-126-394-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C901	1-126-394-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C902	1-126-394-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C903	1-126-394-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C904	1-110-501-11	s	CAPACITOR CERAMIC 0.33MF/16V
C905	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C906	1-113-642-11	s	CAPACITOR, TANTALUM 47MF/10V
C907	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C908	1-127-951-21	s	CAPACITOR FILM 0.015MF/16V
C909	1-104-552-11	s	CAP,CHIP FILM 0.012MF
C910	1-135-201-11	s	CAPACITOR,CHIP TANTAL 10MF/4V
C911	1-127-956-21	s	CAPACITOR, CHIP FILM 0.1MF
C912	1-127-948-21	s	CAPACITOR FILM 0.0047MF/16V
C913	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C914	1-135-201-11	s	CAPACITOR,CHIP TANTAL 10MF/4V
C915	1-104-752-11	s	CAPACITOR TANTALUM 33MF/6.3V

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Ref. No. or Q'ty	Part No.	SP	Description
C916	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C917	1-104-752-11	s	CAPACITOR TANTALUM 33MF/6.3V
C918	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C919	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C920	1-113-642-11	s	CAPACITOR, TANTALUM 47MF/10V
C921	1-135-201-11	s	CAPACITOR,CHIP TANTAL 10MF/4V
C922	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C923	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C924	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C925	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C926	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C927	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C928	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C929	1-163-121-00	s	CAPACITOR,CHIP CERAMIC 150PF
C930	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C931	1-163-121-00	s	CAPACITOR,CHIP CERAMIC 150PF
C932	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C933	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C934	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C935	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C936	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C937	1-126-396-11	s	CAPACITOR ELECT 47MF/16V(CHIP)
C938	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C939	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C940	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C941	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C942	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C943	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C944	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C945	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C946	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C947	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C948	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C949	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C950	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C951	1-126-395-11	s	CAPACITOR ELECT 22MF/16V(CHIP)
C952	1-126-395-11	s	CAPACITOR ELECT 22MF/16V(CHIP)
C953	1-164-161-11	s	CAPACITOR,CHIP CERAMIC 2200PF
C954	1-163-017-00	s	CAPACITOR,CHIP CERAMIC 4700PF
C955	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C956	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C957	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C958	1-109-898-11	s	CAPACITOR,CHIP CERAMIC 18000PF
C959	1-109-897-11	s	CAPACITOR,CHIP CERAMIC 0.015MF
C960	1-109-898-11	s	CAPACITOR,CHIP CERAMIC 18000PF
C961	1-109-897-11	s	CAPACITOR,CHIP CERAMIC 0.015MF
C962	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C963	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1000	1-163-087-00	s	CAPACITOR,CHIP CERAMIC 4.0PF
C1001	1-163-087-00	s	CAPACITOR,CHIP CERAMIC 4.0PF
C1002	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1003	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1004	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1005	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1007	1-163-113-00	s	CAPACITOR,CHIP CERAMIC 68PF/50
C1008	1-163-113-00	s	CAPACITOR,CHIP CERAMIC 68PF/50
C1009	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1010	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1011	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V

Ref. No. or Q'ty	Part No.	SP	Description
C1012	1-163-239-11	s	CAPACITOR CHIP CERAMIC 33PF/50
C1013	1-163-239-11	s	CAPACITOR CHIP CERAMIC 33PF/50
C1014	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1015	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1017	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C1018	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C1019	1-135-214-21	s	CAPACITOR TANTAL 4.7MF/20V
C1020	1-135-214-21	s	CAPACITOR TANTAL 4.7MF/20V
C1021	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C1022	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C1023	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C1024	1-163-275-11	s	CAPACITOR CERAMIC 1000PF/50V
C1025	1-163-087-00	s	CAPACITOR,CHIP CERAMIC 4.0PF
C1026	1-163-087-00	s	CAPACITOR,CHIP CERAMIC 4.0PF
C1027	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1028	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1029	1-163-139-00	s	CAPACITOR,CHIP CERAMIC 820PF
C1030	1-163-139-00	s	CAPACITOR,CHIP CERAMIC 820PF
C1031	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1032	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1033	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1034	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1035	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1036	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1037	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1038	1-163-038-91	s	CAPACITOR, CERAMIC 0.1MF/25V
C1040	1-126-946-11	s	CAPACITOR,ELECT 6800MF/25V
C1041	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1042	1-164-346-11	s	CAPACITOR CHIP CERAMIC 1MF/16V
C1043	1-128-126-11	s	CAPACITOR,ELECT 100M/25V
C1044	1-163-133-00	s	CAPACITOR,CHIP CERAMIC 470PF
C1046	1-128-126-11	s	CAPACITOR,ELECT 100M/25V
C1047	1-126-398-11	s	CAPACITOR ELECT 4.7MF/35V(CHIP
C1048	1-104-760-11	s	CAPACITOR CERAMIC 0.047MF/50V
C1049	1-163-989-11	s	CAPACITOR,CHIP CERAMIC 0.033M
C1050	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C1055	1-128-499-11	s	CAPACITOR,ELECT 220MF/16V
C1056	1-128-499-11	s	CAPACITOR,ELECT 220MF/16V
C1058	1-104-920-11	s	CAPACITOR TANTALUM 4.7MF/35V
CN100	1-506-469-11	s	PIN,CONNECTOR 4P
CN101	1-566-767-11	o	PIN,CONNECTOR (PC BOARD) 12P
CN102	1-506-469-11	s	PIN,CONNECTOR 4P
CN103	1-566-766-11	o	PIN CONNECTOR PC BOARD 11P
CN104	1-566-765-11	o	PIN,CONNECTOR 10P
CN105	1-566-760-11	s	PIN,CONNECTOR (PC BOARD) 5P
CN106	1-565-772-11	o	CONNECTOR 10P
CN107	1-566-764-11	o	PIN,CONNECTOR (PC BOARD) 9P
CN108	1-566-765-11	o	PIN,CONNECTOR 10P
CN109	1-566-759-11	o	PIN,CONNECTOR 4P
CN110	1-580-716-11	o	PIN, CONNECTOR (PC BOARD) 13P
CN111	1-566-760-11	s	PIN,CONNECTOR (PC BOARD) 5P
CN112	1-566-763-11	o	PIN,CONNECTOR (PC BOARD) 8P
CN113	1-506-482-11	s	PIN, CONNECTOR 3P
CN114	1-506-467-11	o	PIN,CONNECTOR 2P
CN115	1-566-759-11	o	PIN,CONNECTOR 4P
CN116	1-564-004-11	o	PIN, CONNECTOR 5P
CN117	1-766-382-11	o	PIN, CONNECTOR (10P)(SMD)(1.5M
CN118	1-774-792-21	s	CONNECTOR, FPC/FFC (4P)
CN119	1-770-359-11	s	PIN, CONNECTOR (PC BOARD) 2P

Ref. No. or Q'ty	Part No.	SP	Description
CN120	1-506-467-11	o	PIN,CONNECTOR 2P
CN400	1-770-678-11	o	CONNECTOR, BOARD TO BOARD 50P
CN901	1-774-267-11	s	CONNECTOR, BOARD TO BOARD 20P
CN902	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN903	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN904	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN905	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN1000	1-764-079-21	s	PIN, CONNECTOR (PC BOARD) 4P
CT900	1-424-511-11	s	TRANSFORMER,FE
CT901	1-424-511-11	s	TRANSFORMER,FE
CT1000	1-141-450-21	s	CAPACITOR ADJUSTMENT 50PF
D200	8-719-977-34	s	DIODE DTZ12
D201	8-719-977-34	s	DIODE DTZ12
D202	8-719-977-34	s	DIODE DTZ12
D203	8-719-977-34	s	DIODE DTZ12
D204	8-719-977-34	s	DIODE DTZ12
D205	8-719-977-34	s	DIODE DTZ12
D206	8-719-977-34	s	DIODE DTZ12
D207	8-719-977-34	s	DIODE DTZ12
D208	8-719-987-43	s	LED CL-150PG-CD
D209	8-719-987-43	s	LED CL-150PG-CD
D210	8-759-710-88	s	IC NJM431U
D211	8-719-989-22	s	LED CL-150R-CD
D600	8-719-975-56	s	DIODE 1SS1120A
D601	8-719-941-09	s	DIODE DAP202U
D602	8-719-941-09	s	DIODE DAP202U
D603	8-719-987-87	s	DIODE ERA85-009
D604	8-719-987-87	s	DIODE ERA85-009
D605	8-719-987-87	s	DIODE ERA85-009
D606	8-719-987-87	s	DIODE ERA85-009
D607	8-719-987-87	s	DIODE ERA85-009
D608	8-719-987-87	s	DIODE ERA85-009
D609	8-719-987-87	s	DIODE ERA85-009
D700	8-719-913-37	s	PHOTO INTERRUPTER GP1A06
D701	8-719-913-37	s	PHOTO INTERRUPTER GP1A06
D702	8-719-941-86	s	DIODE DAN202U
D703	8-719-941-86	s	DIODE DAN202U
D704	8-719-989-22	s	LED CL-150R-CD
D705	8-719-989-22	s	LED CL-150R-CD
D706	8-719-989-22	s	LED CL-150R-CD
D707	8-719-989-22	s	LED CL-150R-CD
D800	8-719-975-85	s	DIODE ERB83-004
D801	8-719-975-85	s	DIODE ERB83-004
D802	8-719-106-88	s	DIODE RD15M-B1
D803	8-719-941-86	s	DIODE DAN202U
D804	8-719-941-86	s	DIODE DAN202U
D805	8-719-975-85	s	DIODE ERB83-004
D806	8-719-975-85	s	DIODE ERB83-004
D807	8-719-941-86	s	DIODE DAN202U
D808	8-719-941-86	s	DIODE DAN202U
D809	8-719-941-23	s	DIODE DA204U
D810	8-719-941-23	s	DIODE DA204U
D900	8-719-941-23	s	DIODE DA204U
D901	8-719-941-23	s	DIODE DA204U
D902	8-719-105-28	s	DIODE RD2.4M-B
D903	8-719-105-28	s	DIODE RD2.4M-B
D904	8-719-941-86	s	DIODE DAN202U
D905	8-719-941-86	s	DIODE DAN202U

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Ref. No. or Q'ty	Part No.	SP	Description
D1000	8-719-024-77	s	DIODE HN1D03FU-TE85L
D1002	8-719-975-85	s	DIODE ERB83-004
D1003	8-719-987-87	s	DIODE ERA85-009
D1005	8-719-987-87	s	DIODE ERA85-009
D1006	8-719-987-87	s	DIODE ERA85-009
FB800	1-543-309-21	s	BEAD,FERRITE
FB801	1-543-309-21	s	BEAD,FERRITE
FB1000	1-543-309-21	s	BEAD,FERRITE
FB1001	1-543-309-21	s	BEAD,FERRITE
IC100	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC101	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC102	8-759-523-92	s	IC TC74VHC21FT(EL)
IC103	8-759-369-92	s	IC M51958AFP (600D)
IC104	8-759-523-95	s	IC TC74VHC74FT(EL)
IC105	8-759-524-48	s	IC TC74VHC393FT (EL)
IC106	8-759-523-81	s	IC TC74VHC08FT(EL)
IC107	8-759-523-94	s	IC TC74VHC32FT(EL)
IC108	8-759-524-07	s	IC TC74VHC138FT(EL)
IC109	8-759-524-07	s	IC TC74VHC138FT(EL)
IC110	8-759-546-58	s	IC MBM29F800BA-90PF
IC111	8-759-296-31	s	IC M48T18-100MH1TR
IC113	8-759-485-20	s	IC M5M5408ATP-55LL-EL
IC114	8-759-485-20	s	IC M5M5408ATP-55LL-EL
IC115	8-759-485-20	s	IC M5M5408ATP-55LL-EL
IC116	8-759-485-20	s	IC M5M5408ATP-55LL-EL
IC117	8-759-524-10	s	IC TC74VHC157FT (EL)
IC118	8-759-523-94	s	IC TC74VHC32FT(EL)
IC200	8-759-238-51	s	IC TC74HC4051AF (EL)
IC201	8-759-348-82	s	IC LTC491CS (E2)
IC202	8-759-348-83	s	IC LTC1337CS
IC203	8-759-543-54	s	IC HD64F7045F28
IC204	8-759-491-36	s	IC TC74VHCT244AF(EL)
IC205	8-759-491-32	s	IC TC74VHCT04AF(EL)
IC206	8-759-190-79	s	IC UPD72001GC-11-3B6
IC207	8-759-523-95	s	IC TC74VHC74FT(EL)
IC208	8-759-524-50	s	IC TC74VHC541FT(EL)
IC300	8-759-049-98	s	IC SN74HC74APW
IC301	8-759-035-93	s	IC SC7S32F
IC302	8-759-293-90	s	IC MSM514221B-30JS
IC303	8-759-011-65	s	IC MC74HC4053F
IC304	8-759-175-77	s	IC CXD8384Q
IC305	8-759-545-80	s	IC LC3564BM-70-TLM
IC306	8-759-175-56	s	IC CXD8804Q
IC307	8-759-491-50	s	IC TC74VHCT244AFT(EL)
IC308	8-759-523-78	s	IC TC74VHC00FT(EL)
IC309	8-759-524-52	s	IC TC74VHC574FT(EL)
IC310	8-759-524-50	s	IC TC74VHC541FT(EL)
IC312	8-759-524-50	s	IC TC74VHC541FT(EL)
IC313	8-759-348-79	s	IC TE7751
IC314	8-759-524-50	s	IC TC74VHC541FT(EL)
IC400	8-759-973-43	s	IC MB8421-90LPFQ
IC401	8-759-246-11	s	IC T6963C
IC402	8-759-049-88	s	IC SN74HCT245APW (E05)
IC403	8-759-359-91	s	IC LH5116N4
IC404	8-759-399-51	s	IC 74LVX4245QSCX
IC405	8-759-174-16	s	IC TC74VHC244F
IC406	8-759-174-16	s	IC TC74VHC244F
IC407	8-759-174-16	s	IC TC74VHC244F
IC408	8-759-049-88	s	IC SN74HCT245APW (E05)

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Ref. No. or Q'ty	Part No.	SP	Description
IC409	8-759-049-88	s	IC SN74HCT245APW (E05)
IC410	8-759-049-88	s	IC SN74HCT245APW (E05)
IC411	8-759-049-88	s	IC SN74HCT245APW (E05)
IC500	8-759-092-83	s	IC SN75158PS
IC501	8-759-523-78	s	IC TC74VHC00FT(EL)
IC502	8-759-277-99	s	IC CXD8889R
IC503	8-759-277-99	s	IC CXD8889R
IC504	8-759-523-84	s	IC TC74VHC14FT (EL)
IC505	8-759-548-99	s	IC SN74LV08APWR
IC507	8-759-523-79	s	IC TC74VHC02FT
IC511	8-759-388-16	o	IC HD6435328RE49F
IC512	8-759-454-72	s	IC CY62128-70SC-T2
IC513	8-759-167-82	s	IC M66220FP (200D)
IC514	8-759-285-08	s	IC CXD8344AQ
IC600	8-759-983-74	s	IC LM324NS
IC601	8-759-009-05	s	IC MC14051BF
IC602	8-759-009-05	s	IC MC14051BF
IC603	8-759-523-78	s	IC TC74VHC00FT(EL)
IC604	8-759-348-69	s	IC HD6415108RF10
IC605	8-759-583-87	s	IC CAT93C46KI-2.5
IC606	8-759-805-32	s	IC LA7205M
IC607	8-759-805-32	s	IC LA7205M
IC608	8-759-523-82	s	IC TC74VHC10FT (EL)
IC609	8-759-523-78	s	IC TC74VHC00FT(EL)
IC610	8-759-523-82	s	IC TC74VHC10FT (EL)
IC611	8-759-053-58	s	IC IDT6116SA25SO
IC612	8-759-053-58	s	IC IDT6116SA25SO
IC613	8-759-523-81	s	IC TC74VHC08FT(EL)
IC615	8-759-553-93	s	IC MBM29F400BC-90PF
IC701	8-759-983-74	s	IC LM324NS
IC702	8-759-239-55	s	IC TC74HC123AF
IC703	8-759-925-05	s	IC LM2903PS
IC704	8-759-925-05	s	IC LM2903PS
IC705	8-752-343-05	s	IC CXD2202Q
IC706	8-752-381-84	s	IC CXD1095BQ
IC707	8-759-491-47	s	IC TC74VHCT08FT (EL)
IC800	8-759-925-05	s	IC LM2903PS
IC801	8-759-983-69	s	IC LM358PS
IC802	8-759-983-69	s	IC LM358PS
IC803	8-759-983-69	s	IC LM358PS
IC804	8-759-983-69	s	IC LM358PS
IC805	8-759-925-05	s	IC LM2903PS
IC806	8-759-245-52	s	IC TA7291F
IC807	8-759-245-52	s	IC TA7291F
IC808	8-759-983-74	s	IC LM324NS
IC809	8-759-983-74	s	IC LM324NS
IC810	8-759-925-05	s	IC LM2903PS
IC811	8-759-983-69	s	IC LM358PS
IC812	8-759-983-69	s	IC LM358PS
IC900	8-759-530-05	s	IC TC4053BFT (EL.N)
IC901	8-759-530-05	s	IC TC4053BFT (EL.N)
IC902	8-759-173-16	s	IC TL062CPW
IC903	8-759-369-73	s	IC NJM4556AM
IC904	8-759-710-28	s	IC NJM4565M-A
IC905	8-759-710-28	s	IC NJM4565M-A
IC906	8-759-209-57	s	IC TC4S69F
IC907	8-759-700-07	s	IC NJM2903M
IC908	8-759-700-07	s	IC NJM2903M
IC909	8-759-209-15	s	IC TC4SU69F

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Ref. No. or Q'ty	Part No.	SP	Description
IC910	8-759-209-15	s	IC TC4SU69F
IC911	8-759-209-15	s	IC TC4SU69F
IC1000	8-759-523-78	s	IC TC74VHC00FT(EL)
IC1001	8-759-531-73	s	IC CXD8753Q
IC1002	8-759-524-27	s	IC TC74VHC244FT(EL)
IC1003	8-759-970-68	s	IC LF353M
IC1004	8-759-980-04	s	IC LM311PS
IC1007	8-759-261-48	s	IC TL1451ACPW(R)
IS110	1-251-496-21	o	SOCKET, IC
IS509	1-540-151-21	s	SOCKET, IC
IS615	1-251-496-21	o	SOCKET, IC
L500	1-410-393-11	s	CHIP INDUCTOR 100UH (3225)
L601	1-409-722-11	s	COIL, CHOKE 220UH
L602	1-409-722-11	s	COIL, CHOKE 220UH
L603	1-409-722-11	s	COIL, CHOKE 220UH
L604	1-409-722-11	s	COIL, CHOKE 220UH
L900	1-424-643-11	s	COIL,CHOKE (OPEN)
L901	1-424-643-11	s	COIL,CHOKE (OPEN)
L902	1-424-642-11	s	COIL,CHOKE (SHIELD)
L903	1-424-642-11	s	COIL,CHOKE (SHIELD)
L1000	1-412-186-11	s	MICRO INDUCTOR 15UH
L1001	1-412-186-11	s	MICRO INDUCTOR 15UH
L1002	1-412-174-11	s	MICRO INDUCTOR 1.0 UF
L1003	1-412-174-11	s	MICRO INDUCTOR 1.0 UF
L1004	1-412-186-11	s	MICRO INDUCTOR 15UH
L1005	1-412-186-11	s	MICRO INDUCTOR 15UH
L1006	1-410-377-31	s	INDUCTOR,CHIP 4.7UH (3225)
L1007	1-410-377-31	s	INDUCTOR,CHIP 4.7UH (3225)
L1008	1-409-722-11	s	COIL, CHOKE 220UH
L1009	1-409-722-11	s	COIL, CHOKE 220UH
LV900	1-414-007-11	s	COIL, VARIABLE
PH500	8-749-924-62	s	PHOTO COUPLER PC410
PH501	8-749-924-62	s	PHOTO COUPLER PC410
PH502	8-749-924-62	s	PHOTO COUPLER PC410
PH503	8-749-924-62	s	PHOTO COUPLER PC410
Q100	8-729-027-46	s	TRANSISTOR DTC114YKA-T146
Q500	8-729-036-15	s	TRANSISTOR SI6542DQ-TL
Q600	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q601	8-729-117-32	s	TRANSISTOR 2SC4177
Q602	8-729-049-56	s	TRANSISTOR 2SK2415
Q603	8-729-049-56	s	TRANSISTOR 2SK2415
Q604	8-729-049-56	s	TRANSISTOR 2SK2415
Q605	8-729-049-56	s	TRANSISTOR 2SK2415
Q606	8-729-049-56	s	TRANSISTOR 2SK2415
Q607	8-729-049-56	s	TRANSISTOR 2SK2415
Q608	8-729-049-56	s	TRANSISTOR 2SK2415
Q700	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q701	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q702	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q800	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q801	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q802	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q803	8-729-120-21	s	TRANSISTOR 2SD1614-T1XL
Q804	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q805	8-729-118-56	s	FET 2SK852-X2
Q806	8-729-020-93	s	TRANSISTOR 2SC2982C-TE12L
Q807	8-729-029-14	s	TRANSISTOR DTC144EUA-T106

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Ref. No. or Q'ty	Part No.	SP	Description
Q808	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q809	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q810	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q811	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q812	8-729-117-32	s	TRANSISTOR 2SC4177
Q813	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q814	8-729-117-32	s	TRANSISTOR 2SC4177
Q815	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q816	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q817	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q818	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q819	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q820	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q821	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q822	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q823	8-729-117-32	s	TRANSISTOR 2SC4177
Q824	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q825	8-729-117-32	s	TRANSISTOR 2SC4177
Q826	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q900	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q901	8-729-117-32	s	TRANSISTOR 2SC4177
Q902	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q903	8-729-117-32	s	TRANSISTOR 2SC4177
Q904	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q905	8-729-028-91	s	TRANSISTOR DTA144EUA-T106
Q906	8-729-028-91	s	TRANSISTOR DTA144EUA-T106
Q907	8-729-028-91	s	TRANSISTOR DTA144EUA-T106
Q908	8-729-824-34	s	TRANSISTOR 2SJ187
Q909	8-729-030-95	s	TRANSISTOR 2SK2151-TD
Q910	8-729-109-44	s	TRANSISTOR 2SK94
Q911	8-729-824-34	s	TRANSISTOR 2SJ187
Q912	8-729-030-95	s	TRANSISTOR 2SK2151-TD
Q913	8-729-028-91	s	TRANSISTOR DTA144EUA-T106
Q914	8-729-028-91	s	TRANSISTOR DTA144EUA-T106
Q915	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q916	8-729-029-14	s	TRANSISTOR DTC144EUA-T106
Q917	8-729-824-34	s	TRANSISTOR 2SJ187
Q918	8-729-824-34	s	TRANSISTOR 2SJ187
Q919	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q920	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q921	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q922	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q1000	8-729-427-72	s	TRANSISTOR XP4501-TXE
Q1001	8-729-117-32	s	TRANSISTOR 2SC4177
Q1002	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q1003	8-729-036-15	s	TRANSISTOR SI6542DQ-TL
Q1004	8-729-028-81	s	TRANSISTOR DTA123JUA-T106
Q1005	8-729-028-81	s	TRANSISTOR DTA123JUA-T106
Q1007	8-729-117-32	s	TRANSISTOR 2SC4177
Q1008	8-729-321-78	s	FET 2SJ176
Q1009	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q1011	8-729-019-03	s	TRANSISTOR 2SB1202FA-T-TL
Q1014	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q1015	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q1016	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
R4	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R13	1-216-089-91	s	RESISTOR, CHIP 47K
R100	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)

Ref. No. or Q'ty	Part No.	SP	Description
R101	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R102	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R103	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R104	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R105	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R106	1-216-089-91	s	RESISTOR, CHIP 47K
R107	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R108	1-216-689-11	s	RESISTOR,CHIP 39K 1/10W(2012)
R109	1-216-680-11	s	RESISTOR CHIP 16K 1/10W (2012)
R110	1-216-634-11	s	RESISTOR,CHIP 200 1/10W(2012)
R111	1-216-662-11	s	RESISTOR,CHIP 3K 1/10W (2012)
R112	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R113	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R114	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R115	1-216-089-91	s	RESISTOR, CHIP 47K
R116	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R117	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R118	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R119	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R120	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R123	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R124	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R200	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R201	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R202	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R203	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R204	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R205	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R206	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R207	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R208	1-216-085-00	s	RESISTOR CHIP 33K 1/10W(2012)
R209	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R210	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R211	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R212	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R213	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R214	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R215	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R216	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R217	1-216-089-91	s	RESISTOR, CHIP 47K
R218	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R219	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R220	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R221	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R222	1-216-009-00	s	RESISTOR,CHIP 22 1/10W(2125)
R223	1-216-009-00	s	RESISTOR,CHIP 22 1/10W(2125)
R224	1-216-009-00	s	RESISTOR,CHIP 22 1/10W(2125)
R225	1-216-009-00	s	RESISTOR,CHIP 22 1/10W(2125)
R226	1-216-009-00	s	RESISTOR,CHIP 22 1/10W(2125)
R227	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R228	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R229	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R230	1-216-047-91	s	RESISTOR, CHIP 820 1/10W(2125)
R231	1-216-047-91	s	RESISTOR, CHIP 820 1/10W(2125)
R232	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R233	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R234	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R235	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R236	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)

Ref. No. or Q'ty	Part No.	SP	Description
R237	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R238	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R239	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R240	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R241	1-216-089-91	s	RESISTOR, CHIP 47K
R243	1-216-089-91	s	RESISTOR, CHIP 47K
R244	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R247	1-216-627-11	s	RESISTOR,CHIP 100 1/10W(2012)
R248	1-216-677-11	s	RESISTOR,CHIP 12K 1/10W(2012)
R249	1-216-679-11	s	RESISTOR CHIP 15K 1/10W(2012)
R250	1-216-047-91	s	RESISTOR, CHIP 820 1/10W(2125)
R251	1-216-089-91	s	RESISTOR, CHIP 47K
R300	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R301	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R302	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R303	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R304	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R305	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R306	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R307	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R308	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R309	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R310	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R311	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R312	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R313	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R314	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R315	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R316	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R318	1-216-089-91	s	RESISTOR, CHIP 47K
R320	1-216-089-91	s	RESISTOR, CHIP 47K
R321	1-216-089-91	s	RESISTOR, CHIP 47K
R322	1-216-089-91	s	RESISTOR, CHIP 47K
R323	1-216-089-91	s	RESISTOR, CHIP 47K
R324	1-216-089-91	s	RESISTOR, CHIP 47K
R325	1-216-089-91	s	RESISTOR, CHIP 47K
R327	1-216-089-91	s	RESISTOR, CHIP 47K
R328	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R329	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R330	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R331	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R332	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R334	1-216-089-91	s	RESISTOR, CHIP 47K
R335	1-216-089-91	s	RESISTOR, CHIP 47K
R336	1-216-089-91	s	RESISTOR, CHIP 47K
R400	1-216-089-91	s	RESISTOR, CHIP 47K
R401	1-216-089-91	s	RESISTOR, CHIP 47K
R402	1-216-089-91	s	RESISTOR, CHIP 47K
R407	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R408	1-216-089-91	s	RESISTOR, CHIP 47K
R409	1-216-089-91	s	RESISTOR, CHIP 47K
R500	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R501	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R502	1-216-630-11	s	RESISTOR,CHIP 130 1/10W(2012)
R503	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R504	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R505	1-216-630-11	s	RESISTOR,CHIP 130 1/10W(2012)
R506	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R507	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)

Ref. No. or Q'ty	Part No.	SP	Description
R508	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R509	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R510	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R511	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R512	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R513	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R514	1-216-610-11	s	RESISTOR,CHIP 20 1/10W(2012)
R515	1-216-089-91	s	RESISTOR, CHIP 47K
R516	1-216-089-91	s	RESISTOR, CHIP 47K
R517	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R600	1-216-682-11	s	RESISTOR,CHIP 20K 1/10W (2012)
R601	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R602	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R603	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R604	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R605	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R606	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R607	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R608	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R609	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R610	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R611	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R612	1-216-103-00	s	RESISTOR,CHIP 180K 1/10W(2012)
R613	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R614	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R615	1-216-079-00	s	RESISTOR CHIP 18K 1/10W(2012)
R616	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R617	1-216-079-00	s	RESISTOR CHIP 18K 1/10W(2012)
R618	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R619	1-216-103-00	s	RESISTOR,CHIP 180K 1/10W(2012)
R620	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R621	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R622	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R623	1-216-089-91	s	RESISTOR, CHIP 47K
R624	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R625	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R626	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R627	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R628	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R629	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R630	1-216-089-91	s	RESISTOR, CHIP 47K
R631	1-216-089-91	s	RESISTOR, CHIP 47K
R632	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R633	1-216-089-91	s	RESISTOR, CHIP 47K
R634	1-216-089-91	s	RESISTOR, CHIP 47K
R635	1-216-089-91	s	RESISTOR, CHIP 47K
R636	1-216-089-91	s	RESISTOR, CHIP 47K
R637	1-216-089-91	s	RESISTOR, CHIP 47K
R638	1-216-089-91	s	RESISTOR, CHIP 47K
R639	1-216-089-91	s	RESISTOR, CHIP 47K
R640	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R641	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R642	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R643	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R644	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R645	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R646	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R647	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R648	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)

Ref. No. or Q'ty	Part No.	SP	Description
R649	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R650	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R651	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R652	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R653	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R654	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R655	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R656	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R657	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R658	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R659	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R660	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R661	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R700	1-216-089-91	s	RESISTOR, CHIP 47K
R701	1-216-089-91	s	RESISTOR, CHIP 47K
R702	1-216-089-91	s	RESISTOR, CHIP 47K
R703	1-216-089-91	s	RESISTOR, CHIP 47K
R704	1-216-089-91	s	RESISTOR, CHIP 47K
R705	1-216-089-91	s	RESISTOR, CHIP 47K
R706	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R707	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R708	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R709	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R710	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R711	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R712	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R713	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R714	1-216-079-00	s	RESISTOR CHIP 18K 1/10W(2012)
R715	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R716	1-216-079-00	s	RESISTOR CHIP 18K 1/10W(2012)
R717	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R718	1-216-089-91	s	RESISTOR, CHIP 47K
R719	1-216-103-00	s	RESISTOR,CHIP 180K 1/10W(2012)
R720	1-216-103-00	s	RESISTOR,CHIP 180K 1/10W(2012)
R721	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R722	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R723	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R724	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R725	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R726	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R727	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R728	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R729	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R730	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R731	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R732	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R733	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R734	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R735	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R736	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R738	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R739	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R740	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R741	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R800	1-218-768-11	s	RESISTOR CHIP 470K 1/10W(2012)
R801	1-218-768-11	s	RESISTOR CHIP 470K 1/10W(2012)
R802	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R803	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R804	1-218-770-11	s	RESISTOR,CHIP 560K 1/10W(2012)

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Ref. No. or Q'ty	Part No.	SP	Description
R805	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R806	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R807	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R808	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R809	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R810	1-216-698-11	s	RESISTOR,CHIP 91K 1/10W(2012)
R811	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R812	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R813	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R814	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R815	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R816	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R817	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R818	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R819	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R820	1-216-682-11	s	RESISTOR,CHIP 20K 1/10W (2012)
R821	1-218-756-11	s	RESISTOR,CHIP 150K 1/10W(2012)
R822	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R823	1-218-756-11	s	RESISTOR,CHIP 150K 1/10W(2012)
R824	1-216-697-91	s	RESISTOR CHIP METAL OXIDE 82K
R825	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R826	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R827	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R828	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R829	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R830	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R831	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R832	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R833	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R834	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R835	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R836	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R837	1-216-697-91	s	RESISTOR CHIP METAL OXIDE 82K
R838	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R839	1-218-236-91	s	RESISTOR, CHIP 1.0
R840	1-218-236-91	s	RESISTOR, CHIP 1.0
R841	1-218-236-91	s	RESISTOR, CHIP 1.0
R842	1-218-236-91	s	RESISTOR, CHIP 1.0
R843	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R844	1-218-236-91	s	RESISTOR, CHIP 1.0
R845	1-218-236-91	s	RESISTOR, CHIP 1.0
R846	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R847	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R848	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R849	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R850	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R851	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R852	1-216-067-00	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R853	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R854	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R855	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R856	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R857	1-218-236-91	s	RESISTOR, CHIP 1.0
R858	1-218-236-91	s	RESISTOR, CHIP 1.0
R859	1-218-236-91	s	RESISTOR, CHIP 1.0
R860	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R861	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R862	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R863	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)

Ref. No. or Q'ty	Part No.	SP	Description
R864	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R865	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R866	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R867	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R868	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R869	1-216-695-11	s	RESISTOR,CHIP 68K 1/10W(2012)
R870	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R871	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R872	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R873	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R874	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R875	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R876	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R877	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R878	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R879	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R880	1-216-089-91	s	RESISTOR, CHIP 47K
R881	1-216-089-91	s	RESISTOR, CHIP 47K
R882	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R883	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R884	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R885	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R886	1-216-089-91	s	RESISTOR, CHIP 47K
R887	1-216-089-91	s	RESISTOR, CHIP 47K
R888	1-216-089-91	s	RESISTOR, CHIP 47K
R889	1-216-089-91	s	RESISTOR, CHIP 47K
R890	1-216-089-91	s	RESISTOR, CHIP 47K
R891	1-216-089-91	s	RESISTOR, CHIP 47K
R892	1-216-089-91	s	RESISTOR, CHIP 47K
R893	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R894	1-216-089-91	s	RESISTOR, CHIP 47K
R895	1-216-089-91	s	RESISTOR, CHIP 47K
R896	1-216-089-91	s	RESISTOR, CHIP 47K
R897	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R898	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R899	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R900	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R901	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R902	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R903	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R904	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R905	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R906	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R907	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R908	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R909	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R910	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R911	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R912	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R913	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R914	1-218-236-91	s	RESISTOR, CHIP 1.0
R915	1-218-236-91	s	RESISTOR, CHIP 1.0
R916	1-218-236-91	s	RESISTOR, CHIP 1.0
R917	1-218-236-91	s	RESISTOR, CHIP 1.0
R918	1-218-236-91	s	RESISTOR, CHIP 1.0
R919	1-218-236-91	s	RESISTOR, CHIP 1.0
R920	1-216-085-00	s	RESISTOR CHIP 33K 1/10W(2012)
R921	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R922	1-216-085-00	s	RESISTOR CHIP 33K 1/10W(2012)

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Ref. No. or Q'ty	Part No.	SP	Description
R923	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R924	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R925	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R926	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R927	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R928	1-216-049-91	s	RESISTOR,CHIP 1K 1/10W(2125)
R929	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R930	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R931	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R932	1-216-089-91	s	RESISTOR, CHIP 47K
R933	1-216-089-91	s	RESISTOR, CHIP 47K
R934	1-216-089-91	s	RESISTOR, CHIP 47K
R935	1-216-089-91	s	RESISTOR, CHIP 47K
R936	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R937	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R950	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R951	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R952	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R953	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R954	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R955	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R956	1-216-101-00	s	RESISTOR CHIP 150K 1/10W(2012)
R957	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R958	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R959	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R960	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R961	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R962	1-216-101-00	s	RESISTOR CHIP 150K 1/10W(2012)
R963	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R964	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R965	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R966	1-216-085-00	s	RESISTOR CHIP 33K 1/10W(2012)
R967	1-216-113-00	s	RESISTOR CHIP 470K 1/10W(2012)
R968	1-216-113-00	s	RESISTOR CHIP 470K 1/10W(2012)
R969	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R970	1-216-657-11	s	RESISTOR,CHIP 1.8K 1/10W(2012)
R971	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R972	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R973	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R974	1-216-089-91	s	RESISTOR, CHIP 47K
R975	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R976	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R977	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R978	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R979	1-216-089-91	s	RESISTOR, CHIP 47K
R980	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R981	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R982	1-218-756-11	s	RESISTOR,CHIP 150K 1/10W(2012)
R983	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R984	1-216-603-11	s	RESISTOR,CHIP 10 1/10W(2012)
R985	1-216-655-11	s	RESISTOR,CHIP 1.5K 1/10W(2012)
R986	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R987	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R988	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R989	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R990	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R991	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R992	1-218-756-11	s	RESISTOR,CHIP 150K 1/10W(2012)
R993	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)

(SST-13 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R994	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R995	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R996	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R997	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R998	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R999	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R1000	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R1001	1-216-668-11	s	RESISTOR,CHIP 5.1K 1/10W(2012)
R1002	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1003	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1004	1-216-097-91	s	RESISTOR,CHIP 100K 1/10W(2012)
R1005	1-218-762-11	s	RESISTOR,CHIP 270K 1/10W(2012)
R1006	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R1007	1-218-762-11	s	RESISTOR,CHIP 270K 1/10W(2012)
R1008	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R1009	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R1010	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R1011	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1012	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1013	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1014	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R1015	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R1016	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1017	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1018	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R1019	1-216-065-91	s	RESISTOR,CHIP 4.7K (2012)
R1020	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R1021	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R1022	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R1023	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R1024	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R1025	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R1026	1-216-111-00	s	RESISTOR,CHIP 390K 1/10(2012)
R1027	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R1028	1-216-111-00	s	RESISTOR,CHIP 390K 1/10(2012)
R1029	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R1030	1-216-689-11	s	RESISTOR CHIP 39K 1/10W(2012)
R1031	1-216-689-11	s	RESISTOR CHIP 39K 1/10W(2012)
R1032	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R1033	1-216-691-11	s	RESISTOR CHIP 47K 1/10W(2012)
R1034	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1035	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1036	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1037	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1039	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1040	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1041	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1042	1-216-298-00	s	RESISTOR,CHIP 2.2 1/10(2012)
R1050	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R1051	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R1053	1-216-665-11	s	RESISTOR,CHIP 3.9K 1/10W(2012)
R1054	1-216-650-11	s	RESISTOR,CHIP 910 1/10W(2012)
R1056	1-216-612-11	s	RESISTOR,CHIP 24 1/10W(2012)
R1057	1-216-610-11	s	RESISTOR,CHIP 20 1/10W(2012)
R1058	1-216-612-11	s	RESISTOR,CHIP 24 1/10W(2012)
R1059	1-216-665-11	s	RESISTOR,CHIP 3.9K 1/10W(2012)
R1060	1-216-650-11	s	RESISTOR,CHIP 910 1/10W(2012)
R1061	1-216-121-91	s	RESISTOR CHIP 1M 1/10W(2125)
R1062	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)

Ref. No. or Q'ty	Part No.	SP	Description
R1063	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1064	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R1065	1-216-634-11	s	RESISTOR,CHIP 200 1/10W(2012)
R1066	1-216-658-11	s	RESISTOR,CHIP 2.0K 1/10W(2012)
R1067	1-216-641-11	s	RESISTOR,CHIP 390 1/10W(2012)
R1069	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R1070	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R1071	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1072	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1073	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1074	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1075	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R1076	1-216-643-11	s	RESISTOR CHIP 470 1/10W (2012)
R1077	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1078	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1079	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1080	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1081	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1082	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R1083	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R1084	1-216-683-11	s	RESISTOR CHIP 22K 1/10W (2012)
R1085	1-216-610-11	s	RESISTOR,CHIP 20 1/10W(2012)
R1086	1-216-610-11	s	RESISTOR,CHIP 20 1/10W(2012)
R1087	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1088	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1089	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R1090	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R1091	1-216-089-91	s	RESISTOR, CHIP 47K
R1094	1-216-113-00	s	RESISTOR CHIP 470K 1/10W(2012)
R1096	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1097	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1098	1-216-079-00	s	RESISTOR CHIP 18K 1/10W(2012)
R1099	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1100	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R1101	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R1102	1-216-681-11	s	RESISTOR CHIP 18K 1/10W (2012)
R1103	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1104	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R1105	1-216-662-11	s	RESISTOR,CHIP 3K 1/10W (2012)
R1108	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1109	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1110	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1111	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1113	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R1114	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R1115	1-216-025-91	s	RESISTOR,CHIP 100 1/10W(2125)
R1116	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R1119	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R1120	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R1121	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R1125	1-216-699-11	s	RESISTOR,CHIP 100K 1/10W(2012)
R1126	1-216-687-11	s	RESISTOR CHIP 33K 1/10W(2012)
R1129	1-216-675-11	s	RESISTOR CHIP 10K 1/10W(2012)
R1130	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R1131	1-218-759-11	s	RESISTOR,CHIP 200K 1/10W(2012)
R1132	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R1134	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1137	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1138	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)

Ref. No. or Q'ty	Part No.	SP	Description
R1139	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1140	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R1141	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R1142	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
RB100	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB101	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB102	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB103	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB104	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB105	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB106	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB107	1-239-306-11	s	RESISTOR ARRAY,CHIP 10K
RB108	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB200	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB300	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB301	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB302	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB303	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB304	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB305	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB306	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB307	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB400	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB401	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB500	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB501	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB502	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB503	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB504	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB505	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB506	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB507	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB600	1-236-908-11	s	RESISTOR,NETWORK 10K (3216)
RB601	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB602	1-239-308-11	s	RESISTOR ARRAY,CHIP 47K
RB700	1-239-430-11	s	NETWORK RESISTOR 4.7K (1608)
RB701	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB702	1-239-430-11	s	NETWORK RESISTOR 4.7K (1608)
RB703	1-239-430-11	s	NETWORK RESISTOR 4.7K (1608)
RB704	1-239-430-11	s	NETWORK RESISTOR 4.7K (1608)
RB705	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB706	1-239-430-11	s	NETWORK RESISTOR 4.7K (1608)
RB707	1-239-430-11	s	NETWORK RESISTOR 4.7K (1608)
RB708	1-236-904-11	s	RESISTOR NETWORK 1K (1608)
RB709	1-236-904-11	s	RESISTOR NETWORK 1K (1608)
RB710	1-239-305-11	s	RESISTOR ARRAY,CHIP 4.7K
RB1000	1-236-908-11	s	RESISTOR,NETWORK 10K (3216)
RB1001	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RV400	1-238-785-21	s	RESISTOR, ADJ, CERMET 2K
RV600	1-241-520-11	s	RESISTOR VAR, CARBON 10K
RV601	1-237-038-11	s	RESISTOR,ADJ,CERMET 50K
RV1000	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
RV1001	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
S100	1-572-473-11	s	SWITCH, TACTIL
S101	1-692-271-31	s	SWITCH, SLIDE
S701	1-692-270-41	s	SWITCH, SLIDE
THP1	1-803-070-11	s	THERMISTOR, POSITIVE

(SST-13 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
X100	1-767-283-21	s	OSCILLATOR, CRYSTAL
X200	1-767-139-21	s	OSCILLATOR, CRYSTAL
X500	1-760-435-11	s	VIBRATOR, CRYSTAL
X600	1-579-996-21	s	VIBRATOR, CERAMIC
X1000	1-767-973-11	s	VIBRATOR, CRYSTAL

TR-57 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6754-272-A	o	MOUNTED CIRCUIT BOARD, TR-57
4pcs	1-564-831-11	o	CONNECTOR CONTACT
4pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
CN1	1-562-737-11	o	HOUSING, CONNECTOR 4P
CN954	1-569-197-41	o	HOUSING, CONNECTOR 4P
PD1	8-745-001-07	s	DME DM-230-1

VPR-53 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-710-A	o	MOUNTED CIRCUIT BOARD, VPR-53
C2	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C3	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C6	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C7	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C9	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C11	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C12	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C13	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C14	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C16	1-113-682-11	s	CAPACITOR,TANTALUM 33MF/10V
C17	1-113-682-11	s	CAPACITOR,TANTALUM 33MF/10V
C18	1-113-682-11	s	CAPACITOR,TANTALUM 33MF/10V
C19	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C21	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C22	1-113-682-11	s	CAPACITOR,TANTALUM 33MF/10V
C23	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C25	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C27	1-113-682-11	s	CAPACITOR,TANTALUM 33MF/10V
C28	1-113-682-11	s	CAPACITOR,TANTALUM 33MF/10V
C29	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C30	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C31	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C32	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C33	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C34	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C35	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C36	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C37	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C38	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C39	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C40	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C41	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C42	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C43	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C44	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C45	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C46	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C47	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C48	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C49	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C50	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C51	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C52	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C53	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C54	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C55	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C56	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C57	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C58	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C59	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C60	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C61	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C62	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C63	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C64	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C65	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C66	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(VPR-53 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C67	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C68	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C69	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C70	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C71	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C72	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C73	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C74	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C75	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C76	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C77	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C78	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C79	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C80	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C81	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C82	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C83	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C84	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C85	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C86	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C87	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C88	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C89	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C90	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C91	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C92	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C93	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C94	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C95	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C96	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C97	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C98	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C99	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C100	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C101	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C102	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C103	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C104	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C105	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C106	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C107	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C108	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C109	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C110	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C111	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C112	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C113	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C114	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C115	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C116	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C117	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C118	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C119	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C120	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C121	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C200	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C201	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C202	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C203	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

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Ref. No. or Q'ty	Part No.	SP	Description
C204	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C205	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C206	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C207	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C208	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C209	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C210	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C211	1-104-852-11	s	CAPACITOR,TANTALUM 22MF/10V
C212	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C213	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C214	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C215	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C216	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C217	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C218	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C219	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C220	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C221	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C222	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C223	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C225	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C226	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C227	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C228	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C229	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C230	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C231	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C232	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C233	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C234	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C235	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C236	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C237	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C238	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C239	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C240	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C241	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C242	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C243	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C244	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C245	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C246	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C247	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C248	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C249	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C251	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C252	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C253	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C254	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C255	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C259	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C260	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C261	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C262	1-162-907-11	s	CAPACITOR,CERAMIC 2PF/50V (CK)
C263	1-162-907-11	s	CAPACITOR,CERAMIC 2PF/50V (CK)
C264	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C265	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C266	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C267	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

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Ref. No. or Q'ty	Part No.	SP	Description
C268	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C269	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C270	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C271	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C272	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C274	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C275	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C276	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C277	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C278	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C279	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C280	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C281	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C282	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C283	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C284	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C285	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C286	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C287	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C288	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C289	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C290	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C293	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C294	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C300	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C301	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C302	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C303	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C304	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C305	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C306	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C307	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C308	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C309	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C310	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C311	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C312	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C313	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C314	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C315	1-135-180-21	s	CAPACITOR TANTALUM 3.3MF/10V
C324	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C325	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C326	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C327	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C328	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C329	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C330	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C331	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C332	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C333	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C334	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C335	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C336	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C337	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C338	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C339	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C400	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C401	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

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Ref. No. or Q'ty	Part No.	SP	Description
C403	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C404	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C405	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C406	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C407	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C408	1-104-563-11	s	CAPACITOR, CHIP FILM 0.1MF
C409	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C410	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C412	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C414	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C415	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C416	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C417	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C418	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C420	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C421	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C422	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C423	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C424	1-162-924-11	s	CAPACITOR,CERAMIC 56PF/50V CH
C425	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C426	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C427	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C428	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C429	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C430	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C431	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C432	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C433	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C434	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C435	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C436	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C437	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C438	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C439	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C440	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C441	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C442	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C443	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C444	1-162-920-11	s	CAPACITOR,CERAMIC 27PF/50V CH
C445	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C446	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C447	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C448	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C449	1-104-914-11	s	CAPACITOR CHIP TANTAL 22MF/16V
C450	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C451	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C452	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C453	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C454	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C455	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C457	1-162-956-11	s	CAPACITOR,CERAMIC 180PF/50V SL
C458	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C459	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C460	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C461	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C462	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

Ref. No. or Q'ty	Part No.	SP	Description
C463	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C464	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C465	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C466	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C467	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C468	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C469	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C470	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C471	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C472	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C473	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C474	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C475	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C476	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C477	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C478	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C479	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C480	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C481	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C482	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C483	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C484	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C485	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C486	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C487	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C488	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C489	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C490	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C491	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C492	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C493	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C494	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C495	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C496	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C497	1-162-922-11	s	CAPACITOR,CERAMIC 39PF/50V CH
C498	1-162-922-11	s	CAPACITOR,CERAMIC 39PF/50V CH
C500	1-135-070-00	s	CAPACITOR TANTALUM 0.1MF/35V
C501	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C502	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C503	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C508	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C509	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C510	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C511	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C512	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C513	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C514	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C515	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C516	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C517	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C518	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C519	1-104-823-11	s	CAPACITOR,CHIP TANTAL 47MF/16V
C520	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C521	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C522	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C523	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C524	1-135-177-21	s	CAPACITOR TANTALUM 1MF/25V
C525	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C527	1-128-706-11	s	CAPACITOR,POLYPYRROLE 150MF

Ref. No. or Q'ty	Part No.	SP	Description
C528	1-128-706-11	s	CAPACITOR,POLYPYRROLE 150MF
C529	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C530	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C531	1-128-706-11	s	CAPACITOR,POLYPYRROLE 150MF
C532	1-128-706-11	s	CAPACITOR,POLYPYRROLE 150MF
C601	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C602	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C603	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C604	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C605	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C606	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C607	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C608	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C609	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C610	1-128-707-11	s	CAPACITOR,POLYPYRROLE 220MF
C611	1-128-708-11	s	CAPACITOR,POLYPYRROLE 470MF
C612	1-128-708-11	s	CAPACITOR,POLYPYRROLE 470MF
C613	1-128-708-11	s	CAPACITOR,POLYPYRROLE 470MF
C614	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C615	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C616	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C617	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C618	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C619	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C620	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C621	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C622	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C623	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C624	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C625	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C700	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C701	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C702	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C703	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C704	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C705	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C706	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C707	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C708	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C709	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C710	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C711	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C712	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C713	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C714	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C715	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C716	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C717	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C718	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C719	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C720	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C721	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C722	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C723	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C724	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C725	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C726	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C727	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C728	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

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Ref. No. or Q'ty	Part No.	SP	Description
C800	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C801	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C802	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C803	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C804	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C805	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C806	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C807	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C808	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C809	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C810	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C811	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C812	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C813	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C814	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C815	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C816	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C817	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C818	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C819	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C820	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C821	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C822	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C823	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C824	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C901	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C902	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1000	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1001	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1002	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1003	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1004	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1005	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1006	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1007	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1008	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1009	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1010	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1011	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1012	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1013	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1014	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1015	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1016	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1017	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1018	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1019	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1020	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1021	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1022	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1023	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1024	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1025	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1026	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1027	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1028	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1029	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C1030	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1031	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

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Ref. No. or Q'ty	Part No.	SP	Description
C1032	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1100	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1101	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1102	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1104	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1105	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1106	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1107	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1108	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1109	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1110	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1111	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1112	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1113	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1200	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1201	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1202	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1203	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1204	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1205	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1206	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1207	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1208	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1209	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C1210	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C1211	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1300	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1301	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1302	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1303	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1304	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1305	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1306	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1307	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1308	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1309	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1310	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1311	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1312	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1313	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1314	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1315	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1316	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1400	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1401	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1403	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1404	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1405	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1406	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1407	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1408	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C1409	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C1410	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C1411	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C1412	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C1413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1414	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1415	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B

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Ref. No. or Q'ty	Part No.	SP	Description
C1416	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1417	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C1418	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C1419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1420	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1421	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1422	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1423	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1424	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C1425	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C1426	1-162-924-11	s	CAPACITOR,CERAMIC 56PF/50V CH
C1427	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1428	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C1429	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1430	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1431	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1432	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1433	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1434	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C1435	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C1437	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1439	1-162-911-11	s	CAPACITOR,CERAMIC 6PF/50V 1608
C1440	1-163-085-00	s	CAPACITOR,CHIP CERAMIC 2.0PF
C1441	1-162-928-11	s	CAPACITOR,CERAMIC 120PF/50V CH
C1442	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C1443	1-104-559-11	s	CAPACITOR FILM 0.047MF/16V
C1444	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
C1445	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1446	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1447	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1448	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1449	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C1450	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1451	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1452	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1453	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1454	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1455	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1456	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1457	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1500	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1501	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1502	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1503	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1504	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1505	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1506	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1507	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1508	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1509	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1510	1-128-709-11	s	CAPACITOR,POLYPYRROLE 68MF
C1511	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1512	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1513	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1514	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1515	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1516	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1517	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1518	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

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Ref. No. or Q'ty	Part No.	SP	Description
C1519	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1520	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1521	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1522	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1523	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1524	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1525	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1526	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C1527	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C1528	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C1529	1-104-551-11	s	CAPACITOR FILM 0.01MF/16V 2125
C1530	1-104-563-11	s	CAPACITOR, CHIP FILM 0.1MF
C1531	1-104-563-11	s	CAPACITOR, CHIP FILM 0.1MF
C1532	1-104-563-11	s	CAPACITOR, CHIP FILM 0.1MF
C1533	1-104-563-11	s	CAPACITOR, CHIP FILM 0.1MF
C1534	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1535	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1536	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1537	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1538	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1539	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1540	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1541	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1542	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1543	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1544	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1545	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1546	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1600	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1601	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1602	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1603	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1604	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1605	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1606	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1607	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1608	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1609	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1610	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1611	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1700	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1701	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1702	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1703	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1704	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1705	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1706	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1707	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1708	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1709	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1710	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1711	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1712	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1713	1-104-563-11	s	CAPACITOR, CHIP FILM 0.1MF
C1715	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1800	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1801	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1802	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1803	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

Ref. No. or Q'ty	Part No.	SP	Description
C1804	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1805	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1806	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1807	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1808	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1809	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1810	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1811	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1812	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1813	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1900	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1901	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1902	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1903	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1904	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1905	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1906	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1907	1-126-397-11	s	CAPACITOR ELECT 33MF/25V(CHIP)
C1908	1-128-707-11	s	CAPACITOR,POLYPYRROLE 220MF
C1909	1-128-707-11	s	CAPACITOR,POLYPYRROLE 220MF
C1910	1-128-706-11	s	CAPACITOR,POLYPYRROLE 150MF
C1911	1-128-706-11	s	CAPACITOR,POLYPYRROLE 150MF
C1912	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C1913	1-126-393-11	s	CAPACITOR ELECT 33MF/10V(CHIP)
C1914	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C1915	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C1916	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C1917	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C1918	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1919	1-128-707-11	s	CAPACITOR,POLYPYRROLE 220MF
C1920	1-128-707-11	s	CAPACITOR,POLYPYRROLE 220MF
C1921	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C1922	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C1923	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C1924	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1925	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1926	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1927	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1928	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1929	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1930	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1931	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1932	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1933	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1934	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1935	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1936	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1937	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
CN201	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN202	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN203	1-774-267-11	s	CONNECTOR, BOARD TO BOARD 20P
CN204	1-774-268-11	s	CONNECTOR, BOARD TO BOARD 26P
CN205	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN206	1-566-765-11	o	PIN,CONNECTOR 10P
CN207	1-566-767-11	o	PIN,CONNECTOR (PC BOARD) 12P
CN208	1-566-761-11	o	PIN,CONNECTOR (PC BOARD) 6P
CN209	1-779-393-11	o	CONNECTOR, BOARD TO BOARD 100P
CN210	1-779-393-11	o	CONNECTOR, BOARD TO BOARD 100P
CN212	1-564-002-11	s	PIN, CONNECTOR 3P

Ref. No. or Q'ty	Part No.	SP	Description
CN213	1-566-762-11	o	PIN,CONNECTOR(PC BOARD)7P
CN214	1-566-763-11	o	PIN,CONNECTOR (PC BOARD) 8P
CN215	1-566-759-11	o	PIN,CONNECTOR 4P
CN216	1-566-767-11	o	PIN,CONNECTOR (PC BOARD) 12P
CN906	1-774-267-11	s	CONNECTOR, BOARD TO BOARD 20P
CN907	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN908	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN909	1-774-269-11	s	CONNECTOR, BOARD TO BOARD 30P
CN910	1-774-266-11	s	CONNECTOR, BOARD TO BOARD 18P
D200	8-759-185-42	s	IC LM4040AIM3-2.5
D400	8-719-023-69	s	DIODE SB007T03Q
D401	8-719-023-69	s	DIODE SB007T03Q
D402	8-719-023-69	s	DIODE SB007T03Q
D500	8-759-185-42	s	IC LM4040AIM3-2.5
D1400	8-719-941-23	s	DIODE DA204U
D1700	8-719-938-72	s	DIODE SB01-05CP (RECTI)
FB400	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB401	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB402	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB403	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB404	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1500	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1501	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1502	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1503	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1504	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1505	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1506	1-543-622-11	s	BEAD,FERRITE (CHIP)
FB1507	1-543-622-11	s	BEAD,FERRITE (CHIP)
FL1	1-234-316-11	s	FILTER, LOW PASS
FL2	1-234-317-11	s	FILTER, LOW PASS
FL3	1-234-317-11	s	FILTER, LOW PASS
FL200	1-233-997-11	s	FILTER,LOW PASS
FL201	1-233-996-11	s	FILTER,LOW PASS
FL202	1-233-996-11	s	FILTER,LOW PASS
FL500	1-239-894-11	s	FILTER, LOW PASS (SMD)
FL502	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL503	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL600	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL601	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1900	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1901	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1902	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1903	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1904	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1905	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1906	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
FL1907	1-117-193-11	s	CAPACITOR,3 TERMINAL 1.5MF/50V
IC1	8-759-054-61	s	IC CLC505AJE
IC2	8-759-054-61	s	IC CLC505AJE
IC3	8-759-054-61	s	IC CLC505AJE
IC4	8-759-054-61	s	IC CLC505AJE
IC5	8-759-054-61	s	IC CLC505AJE
IC6	8-759-054-61	s	IC CLC505AJE
IC7	8-759-054-61	s	IC CLC505AJE
IC8	8-759-082-61	s	IC TC4W53FU
IC9	8-759-082-61	s	IC TC4W53FU
IC10	8-759-327-01	s	IC NJM062V-TE2

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Ref. No. or Q'ty	Part No.	SP	Description
IC11	8-759-082-61	s	IC TC4W53FU
IC12	8-759-327-01	s	IC NJM062V-TE2
IC13	8-759-327-01	s	IC NJM062V-TE2
IC14	8-759-327-01	s	IC NJM062V-TE2
IC15	8-759-327-01	s	IC NJM062V-TE2
IC16	8-759-327-01	s	IC NJM062V-TE2
IC17	8-759-475-64	s	IC SPT7860SCT-T
IC18	8-759-475-64	s	IC SPT7860SCT-T
IC19	8-759-475-64	s	IC SPT7860SCT-T
IC20	8-759-475-64	s	IC SPT7860SCT-T
IC21	8-759-421-88	s	IC SN74LVC821APW (E05)
IC22	8-759-421-88	s	IC SN74LVC821APW (E05)
IC23	8-759-421-88	s	IC SN74LVC821APW (E05)
IC24	8-759-421-88	s	IC SN74LVC821APW (E05)
IC25	8-759-421-88	s	IC SN74LVC821APW (E05)
IC26	8-759-421-88	s	IC SN74LVC821APW (E05)
IC27	8-759-421-88	s	IC SN74LVC821APW (E05)
IC28	8-759-421-88	s	IC SN74LVC821APW (E05)
IC200	8-759-491-51	s	IC TC74VHCT245AFT(EL)
IC201	8-759-491-55	s	IC TC74VHCT74AFT(EL)
IC202	8-759-523-95	s	IC TC74VHC74FT(EL)
IC203	8-759-472-67	s	IC 74VHCT574MTCX
IC204	8-759-472-67	s	IC 74VHCT574MTCX
IC205	8-759-058-54	s	IC TC7S00FU-TE85R
IC206	8-759-472-67	s	IC 74VHCT574MTCX
IC207	8-759-472-67	s	IC 74VHCT574MTCX
IC208	8-759-472-67	s	IC 74VHCT574MTCX
IC209	8-759-472-67	s	IC 74VHCT574MTCX
IC210	8-759-485-82	s	IC MC34182DR2
IC211	8-759-485-82	s	IC MC34182DR2
IC212	8-759-491-45	s	IC TC74VHCT00AFT(EL)
IC213	8-759-491-47	s	IC TC74VHCT08FT (EL)
IC214	8-752-339-46	s	IC CXD1177Q
IC215	8-752-375-98	s	IC CXD2315Q
IC216	8-759-327-01	s	IC NJM062V-TE2
IC217	8-759-327-01	s	IC NJM062V-TE2
IC218	8-759-327-01	s	IC NJM062V-TE2
IC219	8-759-054-61	s	IC CLC505AJE
IC220	8-759-054-61	s	IC CLC505AJE
IC221	8-759-054-61	s	IC CLC505AJE
IC222	8-759-491-47	s	IC TC74VHCT08FT (EL)
IC223	8-759-082-61	s	IC TC4W53FU
IC224	8-759-082-61	s	IC TC4W53FU
IC225	8-759-082-61	s	IC TC4W53FU
IC226	8-752-061-02	s	IC CXA1450M
IC227	8-752-061-02	s	IC CXA1450M
IC228	8-752-061-02	s	IC CXA1450M
IC229	8-752-061-02	s	IC CXA1450M
IC232	8-759-054-61	s	IC CLC505AJE
IC233	8-759-054-61	s	IC CLC505AJE
IC234	8-759-054-61	s	IC CLC505AJE
IC235	8-759-054-61	s	IC CLC505AJE
IC400	8-759-523-95	s	IC TC74VHC74FT(EL)
IC401	8-759-491-45	s	IC TC74VHCT00AFT(EL)
IC402	8-759-252-21	s	IC EL2244CS
IC403	8-759-485-82	s	IC MC34182DR2
IC404	8-759-523-81	s	IC TC74VHC08FT(EL)
IC405	8-759-987-27	s	IC LM1881M
IC406	8-759-528-99	s	IC TC74VHC221AFT(EL)

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Ref. No. or Q'ty	Part No.	SP	Description
IC407	8-759-082-61	s	IC TC4W53FU
IC408	8-759-389-33	s	IC 74LCX244MTCX
IC409	8-759-978-96	s	IC SN75207BNS
IC410	8-759-528-99	s	IC TC74VHC221AFT(EL)
IC411	8-759-473-94	s	IC CXD9013AR
IC412	8-759-049-79	s	IC SN74HC245APWR
IC413	8-759-523-04	s	IC TC74HC4538AFT
IC414	8-759-491-51	s	IC TC74VHCT245AFT(EL)
IC415	8-759-234-20	s	IC TC7S08F
IC416	8-759-430-21	s	IC MSM6524GS-KR1
IC417	8-759-031-84	s	IC SC7S04F
IC418	8-759-389-32	s	IC 74LCX240MTCX
IC419	8-759-547-49	s	IC CDC509PWR
IC420	8-759-547-49	s	IC CDC509PWR
IC421	8-759-547-49	s	IC CDC509PWR
IC422	8-759-485-82	s	IC MC34182DR2
IC423	8-759-485-82	s	IC MC34182DR2
IC424	8-759-475-33	s	IC TC74LCX00FT(EL)
IC425	8-759-475-33	s	IC TC74LCX00FT(EL)
IC426	8-759-466-55	s	IC 74LCX74MTCX
IC500	8-759-456-26	s	IC 74LCX541MTCX
IC501	8-752-356-44	s	IC CXD2306Q
IC503	8-759-252-21	s	IC EL2244CS
IC505	8-752-052-82	s	IC CXA1432M
IC506	8-759-252-21	s	IC EL2244CS
IC507	8-759-173-16	s	IC TL062CPW
IC509	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC510	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC511	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC512	8-729-024-50	s	TRANSISTOR SI9936DY
IC513	8-729-040-75	s	TRANSISTOR SI4953DY
IC514	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC515	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC601	8-759-471-91	s	IC 74VHC04MTCX
IC602	8-759-389-32	s	IC 74LCX240MTCX
IC603	8-759-389-31	s	IC 74LCX125MTCX
IC604	8-759-049-55	s	IC SN74HC00APW (E20)
IC605	8-759-389-48	s	IC 74LCX16374MTDX
IC606	8-759-389-48	s	IC 74LCX16374MTDX
IC607	8-759-389-48	s	IC 74LCX16374MTDX
IC608	8-759-389-48	s	IC 74LCX16374MTDX
IC609	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC610	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC611	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC612	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC700	8-759-389-48	s	IC 74LCX16374MTDX
IC701	8-759-389-48	s	IC 74LCX16374MTDX
IC702	8-759-389-32	s	IC 74LCX240MTCX
IC703	8-759-492-32	s	IC CXD9014BR
IC704	8-759-386-27	s	IC 74LCX04MTCX
IC705	8-759-386-26	s	IC 74LCX574MTCX
IC706	8-759-421-88	s	IC SN74LVC821APW (E05)
IC800	8-759-386-26	s	IC 74LCX574MTCX
IC801	8-759-421-88	s	IC SN74LVC821APW (E05)
IC802	8-759-492-32	s	IC CXD9014BR
IC902	8-759-389-48	s	IC 74LCX16374MTDX
IC903	8-759-389-48	s	IC 74LCX16374MTDX
IC1000	8-759-386-27	s	IC 74LCX04MTCX
IC1001	8-759-651-59	s	IC SN74CBTLV3245APWR

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Ref. No. or Q'ty	Part No.	SP	Description
IC1002	8-759-651-59	s	IC SN74CBTLV3245APWR
IC1004	8-759-491-50	s	IC TC74VHCT244AFT(EL)
IC1005	8-759-461-39	s	IC MB90091A-120
IC1006	8-759-549-15	s	IC SN74LV245APWR
IC1100	8-759-389-26	s	IC 74LCX08MTCX
IC1101	8-759-524-52	s	IC TC74VHC574FT(EL)
IC1102	8-759-546-79	s	IC 74LCX138MTCX
IC1103	8-759-549-15	s	IC SN74LV245APWR
IC1104	8-759-389-31	s	IC 74LCX125MTCX
IC1105	8-759-389-26	s	IC 74LCX08MTCX
IC1106	8-759-386-27	s	IC 74LCX04MTCX
IC1108	8-759-482-59	s	IC CXD8591AQ
IC1109	8-759-482-59	s	IC CXD8591AQ
IC1200	8-759-389-33	s	IC 74LCX244MTCX
IC1201	8-759-389-33	s	IC 74LCX244MTCX
IC1202	8-759-491-50	s	IC TC74VHCT244AFT(EL)
IC1203	8-759-491-50	s	IC TC74VHCT244AFT(EL)
IC1204	8-759-523-81	s	IC TC74VHC08FT(EL)
IC1205	8-752-378-49	s	IC CXD206-123R
IC1206	8-759-422-80	s	IC MN47V77ST1
IC1207	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC1208	8-759-523-95	s	IC TC74VHC74FT(EL)
IC1300	8-759-482-59	s	IC CXD8591AQ
IC1301	8-759-482-59	s	IC CXD8591AQ
IC1302	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC1303	8-759-482-59	s	IC CXD8591AQ
IC1304	8-759-482-59	s	IC CXD8591AQ
IC1305	8-759-389-26	s	IC 74LCX08MTCX
IC1306	8-759-491-51	s	IC TC74VHCT245AFT(EL)
IC1307	8-759-466-57	s	IC 74LCX157MTCX
IC1308	8-759-389-26	s	IC 74LCX08MTCX
IC1400	8-759-082-61	s	IC TC4W53FU
IC1401	8-759-252-21	s	IC EL2244CS
IC1402	8-759-987-27	s	IC LM1881M
IC1403	8-759-987-27	s	IC LM1881M
IC1404	8-759-528-99	s	IC TC74VHC221AFT(EL)
IC1405	8-759-528-99	s	IC TC74VHC221AFT(EL)
IC1406	8-759-523-95	s	IC TC74VHC74FT(EL)
IC1407	8-759-978-96	s	IC SN75207BNS
IC1408	8-759-528-99	s	IC TC74VHC221AFT(EL)
IC1409	8-759-485-82	s	IC MC34182DR2
IC1410	8-759-523-81	s	IC TC74VHC08FT(EL)
IC1411	8-759-184-64	s	IC TC4W66FU
IC1412	8-759-702-08	s	IC NJM360M
IC1413	8-759-702-08	s	IC NJM360M
IC1500	8-759-473-94	s	IC CXD9013AR
IC1501	8-759-547-50	s	IC CDC516DGGR
IC1502	8-759-547-49	s	IC CDC509PWR
IC1503	8-759-491-45	s	IC TC74VHCT00AFT(EL)
IC1504	8-759-485-82	s	IC MC34182DR2
IC1505	8-759-485-82	s	IC MC34182DR2
IC1506	8-759-082-61	s	IC TC4W53FU
IC1507	8-759-389-33	s	IC 74LCX244MTCX
IC1508	8-759-389-33	s	IC 74LCX244MTCX
IC1509	8-759-389-32	s	IC 74LCX240MTCX
IC1600	8-759-456-26	s	IC 74LCX541MTCX
IC1601	8-759-456-26	s	IC 74LCX541MTCX
IC1602	8-759-466-55	s	IC 74LCX74MTCX
IC1603	8-759-386-27	s	IC 74LCX04MTCX

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Ref. No. or Q'ty	Part No.	SP	Description
IC1604	8-759-456-26	s	IC 74LCX541MTCX
IC1605	8-759-456-26	s	IC 74LCX541MTCX
IC1606	8-759-524-19	s	IC TC74VHC164FT(EL)
IC1607	8-759-524-19	s	IC TC74VHC164FT(EL)
IC1608	8-759-466-55	s	IC 74LCX74MTCX
IC1609	8-759-490-41	s	IC TC74VHCT541AFT(EL)
IC1610	8-759-456-26	s	IC 74LCX541MTCX
IC1611	8-759-456-26	s	IC 74LCX541MTCX
IC1700	8-759-549-15	s	IC SN74LV245APWR
IC1701	8-759-549-15	s	IC SN74LV245APWR
IC1702	8-759-549-15	s	IC SN74LV245APWR
IC1703	8-759-549-15	s	IC SN74LV245APWR
IC1704	8-759-549-15	s	IC SN74LV245APWR
IC1705	8-759-549-15	s	IC SN74LV245APWR
IC1706	8-759-549-15	s	IC SN74LV245APWR
IC1707	8-759-348-79	s	IC TE7751
IC1708	8-759-524-50	s	IC TC74VHC541FT(EL)
IC1709	8-759-524-50	s	IC TC74VHC541FT(EL)
IC1710	8-759-075-53	s	IC LM35DM
IC1711	8-759-549-15	s	IC SN74LV245APWR
IC1713	8-759-542-84	s	IC S-80821ANUP-EDJ-T2
IC1714	8-759-549-15	s	IC SN74LV245APWR
IC1800	8-759-549-15	s	IC SN74LV245APWR
IC1801	8-759-549-15	s	IC SN74LV245APWR
IC1802	8-759-549-15	s	IC SN74LV245APWR
IC1803	8-759-549-15	s	IC SN74LV245APWR
IC1804	8-759-549-15	s	IC SN74LV245APWR
IC1805	8-759-549-15	s	IC SN74LV245APWR
IC1806	8-759-549-15	s	IC SN74LV245APWR
IC1807	8-759-549-15	s	IC SN74LV245APWR
IC1808	8-759-545-23	s	IC ISPLSI2128V-80LT100
IC1809	8-759-549-15	s	IC SN74LV245APWR
IC1900	8-729-024-50	s	TRANSISTOR SI9936DY
IC1901	8-729-024-50	s	TRANSISTOR SI9936DY
IC1902	8-729-024-50	s	TRANSISTOR SI9936DY
IC1903	8-729-024-50	s	TRANSISTOR SI9936DY
IC1904	8-729-024-50	s	TRANSISTOR SI9936DY
IC1905	8-729-024-50	s	TRANSISTOR SI9936DY
IC1906	8-729-024-50	s	TRANSISTOR SI9936DY
IC1907	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC1908	8-729-040-75	s	TRANSISTOR SI4953DY
IC1909	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC1910	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC1911	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC1912	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC1913	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC1914	8-729-040-75	s	TRANSISTOR SI4953DY
L1	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L2	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L3	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L4	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L5	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L6	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L7	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L8	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L200	1-412-060-11	s	INDUCTOR,SMALL TYPE 22 10%
L201	1-412-390-21	s	MICRO INDUCTOR (CHIP) 21A05
L202	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L203	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH

Ref. No. or Q'ty	Part No.	SP	Description
L400	1-410-377-31	s	INDUCTOR,CHIP 4.7UH (3225)
L401	1-412-060-11	s	INDUCTOR,SMALL TYPE 22 10%
L600	1-424-643-11	s	COIL,CHOKE (OPEN)
L601	1-424-643-11	s	COIL,CHOKE (OPEN)
L1400	1-410-393-11	s	CHIP INDUCTOR 100UH (3225)
L1401	1-410-377-31	s	INDUCTOR,CHIP 4.7UH (3225)
L1402	1-410-385-11	s	CHIP INDUCTOR 22UH (3225)
L1403	1-410-391-11	s	CHIP INDUCTOR 68UH (3225)
Q1	8-729-117-32	s	TRANSISTOR 2SC4177
Q2	8-729-117-32	s	TRANSISTOR 2SC4177
Q3	8-729-117-32	s	TRANSISTOR 2SC4177
Q200	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q201	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q400	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q401	8-729-117-32	s	TRANSISTOR 2SC4177
Q402	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q500	8-729-820-86	s	TRANSISTOR 2SB1121-ST
Q501	8-729-120-21	s	TRANSISTOR 2SD1614-T1XL
Q502	8-729-117-32	s	TRANSISTOR 2SC4177
Q503	8-729-117-16	s	TRANSISTOR 2SA1611M6
Q504	8-729-928-27	s	TRANSISTOR DTA144EE
Q505	8-729-928-27	s	TRANSISTOR DTA144EE
Q506	8-729-928-27	s	TRANSISTOR DTA144EE
Q510	8-729-928-81	s	TRANSISTOR DTC144EE
Q511	8-729-928-27	s	TRANSISTOR DTA144EE
Q600	8-729-928-27	s	TRANSISTOR DTA144EE
Q601	8-729-928-27	s	TRANSISTOR DTA144EE
Q602	8-729-928-27	s	TRANSISTOR DTA144EE
Q603	8-729-928-27	s	TRANSISTOR DTA144EE
Q604	8-729-928-27	s	TRANSISTOR DTA144EE
Q605	8-729-928-27	s	TRANSISTOR DTA144EE
Q606	8-729-928-81	s	TRANSISTOR DTC144EE
Q607	8-729-928-81	s	TRANSISTOR DTC144EE
Q1400	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q1401	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q1402	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q1403	8-729-117-32	s	TRANSISTOR 2SC4177
Q1404	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q1405	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q1406	8-729-117-32	s	TRANSISTOR 2SC4177
Q1407	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q1408	8-729-117-32	s	TRANSISTOR 2SC4177
Q1900	8-729-928-81	s	TRANSISTOR DTC144EE
Q1901	8-729-928-81	s	TRANSISTOR DTC144EE
Q1902	8-729-928-81	s	TRANSISTOR DTC144EE
Q1903	8-729-928-81	s	TRANSISTOR DTC144EE
Q1904	8-729-928-81	s	TRANSISTOR DTC144EE
Q1905	8-729-928-81	s	TRANSISTOR DTC144EE
Q1906	8-729-928-81	s	TRANSISTOR DTC144EE
Q1907	8-729-928-27	s	TRANSISTOR DTA144EE
Q1908	8-729-928-27	s	TRANSISTOR DTA144EE
Q1909	8-729-928-27	s	TRANSISTOR DTA144EE
Q1910	8-729-928-27	s	TRANSISTOR DTA144EE
Q1911	8-729-928-27	s	TRANSISTOR DTA144EE
R1	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R2	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R3	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R5	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R6	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R7	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R8	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R11	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R12	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R16	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R17	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R18	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R19	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R20	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R23	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R24	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R25	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R26	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R27	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R28	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R29	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R30	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R31	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R34	1-218-736-11	s	RESISTOR,CHIP 68K 1/16W(1608)
R35	1-218-736-11	s	RESISTOR,CHIP 68K 1/16W(1608)
R36	1-218-736-11	s	RESISTOR,CHIP 68K 1/16W(1608)
R37	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R38	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R39	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R43	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R44	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R45	1-218-679-91	s	RES,METALFILM CHIP 300
R46	1-218-679-91	s	RES,METALFILM CHIP 300
R47	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R48	1-218-679-91	s	RES,METALFILM CHIP 300
R49	1-218-679-91	s	RES,METALFILM CHIP 300
R50	1-218-679-91	s	RES,METALFILM CHIP 300
R51	1-218-679-91	s	RES,METALFILM CHIP 300
R52	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R53	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R54	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R58	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R59	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R60	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R61	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R62	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R63	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R64	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R65	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R66	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R67	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R68	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R69	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R71	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R72	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R73	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R76	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R77	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R78	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R79	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R80	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R81	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R82	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)

Ref. No. or Q'ty	Part No.	SP	Description
R83	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R84	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R85	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R86	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R87	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R88	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R89	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R90	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R94	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R95	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R96	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R97	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R98	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R99	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R100	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R101	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R102	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R103	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R104	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R105	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R106	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R107	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R108	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R109	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R110	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R111	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R112	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R113	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R114	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R115	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R116	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R117	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R118	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R119	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R120	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R121	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R122	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R123	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R124	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R125	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R126	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R127	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R128	1-218-652-11	s	RESISTOR,CHIP 22 1/16W (1608)
R129	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R130	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R131	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R132	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R133	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R134	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R135	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R137	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R138	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R140	1-218-736-11	s	RESISTOR,CHIP 68K 1/16W(1608)
R141	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R143	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R144	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R145	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R201	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R202	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R203	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R204	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R207	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R208	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R209	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16W (1608)
R210	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R211	1-218-728-11	s	RESISTOR,METAL 33K 1/16W
R213	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R216	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R220	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R221	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R222	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R223	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R224	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R225	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R226	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R227	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R228	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R229	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R231	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R232	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R235	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R236	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R237	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R238	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R239	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R240	1-218-662-11	s	RESISTOR CHIP 56 1/16W (1608)
R243	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R244	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R245	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R246	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R247	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R248	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R249	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R251	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R252	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R253	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R254	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R255	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16W (1608)
R256	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R257	1-218-709-11	s	RESISTOR,METAL 5.1K 1/16W
R258	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R259	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R260	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R261	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R263	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R266	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R267	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R268	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R269	1-218-738-11	s	RESISTOR,CHIP 82K 1/16W(1608)
R270	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R271	1-218-671-11	s	RESISTOR,CHIP 130 1/16W (1608)
R272	1-218-671-11	s	RESISTOR,CHIP 130 1/16W (1608)
R274	1-218-671-11	s	RESISTOR,CHIP 130 1/16W (1608)
R275	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R276	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R280	1-218-714-11	s	RESISTOR,CHIP 8.2K 1/16W(1608)
R281	1-218-714-11	s	RESISTOR,CHIP 8.2K 1/16W(1608)
R283	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R284	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R285	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R286	1-218-726-11	s	RESISTOR CHIP 27K 1/16W (1608)
R287	1-218-726-11	s	RESISTOR CHIP 27K 1/16W (1608)
R288	1-218-726-11	s	RESISTOR CHIP 27K 1/16W (1608)
R289	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R290	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R291	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R292	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R293	1-218-696-11	s	RESISTOR CHIP 1.5K 1/16W(1608)
R294	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R295	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R296	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R297	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R298	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R299	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R300	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R301	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R302	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R303	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R304	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R305	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R306	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R307	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R308	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R309	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R310	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R311	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R314	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R315	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R316	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R318	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R319	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R320	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R322	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R323	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R324	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R340	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R341	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R342	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R343	1-218-674-11	s	RESISTOR CHIP 180 1/16W (1608)
R344	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R346	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R348	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R350	1-218-694-11	s	RESISTOR CHIP 1.2K1/16W(1608)
R352	1-218-693-11	s	RESISTOR,CHIP 1.1K 1/16W(1608)
R353	1-218-693-11	s	RESISTOR,CHIP 1.1K 1/16W(1608)
R354	1-218-693-11	s	RESISTOR,CHIP 1.1K 1/16W(1608)
R355	1-218-693-11	s	RESISTOR,CHIP 1.1K 1/16W(1608)
R356	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R357	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R358	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R359	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R360	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R361	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R362	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R363	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R364	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R365	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R366	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R367	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R380	1-218-685-11	s	RESISTOR CHIP 510 1/16W (1608)
R381	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R382	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R383	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R384	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R385	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R386	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R387	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R388	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R389	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R390	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R391	1-218-701-11	s	RESISTOR,CHIP 2.4K 1/16W(1608)
R392	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R393	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R394	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R395	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R396	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R397	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R398	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R399	1-216-863-11	s	RESISTOR,CHIP 3.3M 1/16W 1608
R400	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R401	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R402	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R403	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R404	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R405	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R406	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R407	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R408	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R409	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R410	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R411	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R412	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R413	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R414	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R415	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R416	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R417	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R418	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R419	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R420	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R421	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R422	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R423	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R424	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R425	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R426	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R427	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R428	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R429	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R430	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R431	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R432	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R433	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R434	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R435	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R436	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R437	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R438	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R439	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R440	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R441	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R442	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R443	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R444	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R445	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R446	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R447	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R448	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R449	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R450	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R451	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R452	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R454	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R455	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R456	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R457	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R458	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R459	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R460	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R461	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R462	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R463	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R464	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R465	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R467	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R468	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R469	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R470	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R473	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R474	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R475	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R476	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R477	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R478	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R479	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R480	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R481	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R482	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R483	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R484	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R485	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R486	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R487	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R488	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R490	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R491	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R492	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R493	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R494	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R495	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R496	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R497	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R500	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R501	1-218-685-11	s	RESISTOR CHIP 510 1/16W (1608)
R502	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R503	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R504	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R505	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R506	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R507	1-218-684-11	s	RESISTOR CHIP 470 1/16W (1608)
R509	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R510	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R511	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R512	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R513	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R514	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R515	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R516	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R517	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R518	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R519	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R520	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R521	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R522	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R523	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R524	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R525	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R526	1-218-701-11	s	RESISTOR,CHIP 2.4K 1/16W(1608)
R527	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R528	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R529	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R530	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R531	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R532	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R533	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R534	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R536	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R537	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R538	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R539	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R540	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R541	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R542	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R543	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R544	1-218-665-11	s	RESISTOR CHIP 75 1/16W (1608)
R600	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R601	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R602	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R604	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R609	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R610	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R611	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R612	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R613	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R614	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R615	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R616	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R617	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R618	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R619	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R620	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R621	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R622	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R623	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)

Ref. No. or Q'ty	Part No.	SP	Description
R624	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R625	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R626	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R627	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R628	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R629	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R630	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R631	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R633	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R635	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R636	1-218-644-11	s	RESISTOR,METAL 10 1/16W
R637	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R638	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R639	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R640	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R641	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R642	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R700	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R701	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R702	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R703	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R704	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R705	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R706	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R707	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R708	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R709	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R800	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R801	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R802	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R803	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R804	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R805	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R900	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R905	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R906	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R909	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R910	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R911	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R912	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R913	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1000	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R1001	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R1002	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1003	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1006	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1007	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1100	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1101	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1103	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1105	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1106	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1107	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1108	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1109	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1110	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1111	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1112	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1113	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R1114	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1117	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1120	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1121	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1123	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1125	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1126	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1127	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1200	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1201	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1202	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1203	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1204	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1205	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1206	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1207	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1208	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1209	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1210	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1211	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1212	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1213	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1214	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1215	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1216	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1217	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1219	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1220	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1221	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1222	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1225	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1226	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1227	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1228	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1229	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1230	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1301	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1303	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1304	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1305	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1306	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1307	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1308	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1309	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1310	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1311	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1312	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1315	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1318	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1319	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1320	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1321	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1322	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1324	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1326	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1328	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1330	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1331	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1332	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R1333	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1334	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1335	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1336	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1337	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1338	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1339	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1342	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1345	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1346	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1347	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1348	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1349	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1350	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1353	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1354	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1355	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1356	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1357	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1358	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1360	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1361	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1363	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1400	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1401	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1403	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R1404	1-218-699-11	s	RESISTOR CHIP 2.0K 1/16W(1608)
R1405	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1406	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1407	1-218-677-11	s	RESISTOR,CHIP 240 1/16W (1608)
R1408	1-218-690-11	s	RESISTOR CHIP 820 1/16W (1608)
R1409	1-218-701-11	s	RESISTOR,CHIP 2.4K 1/16W(1608)
R1410	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1411	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1412	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1413	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R1414	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R1415	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1416	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1417	1-216-863-11	s	RESISTOR,CHIP 3.3M 1/16W 1608
R1418	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1419	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R1420	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R1421	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1422	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R1423	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1424	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1425	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1426	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1427	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1428	1-216-863-11	s	RESISTOR,CHIP 3.3M 1/16W 1608
R1430	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1431	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R1432	1-216-863-11	s	RESISTOR,CHIP 3.3M 1/16W 1608
R1433	1-218-703-11	s	RESISTOR,METAL 3.0K 1/16(1608)
R1434	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R1435	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1436	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1437	1-218-776-11	s	RESISTOR CHIP 1M 1/10W (2012)

Ref. No. or Q'ty	Part No.	SP	Description
R1438	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1439	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1440	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1441	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1442	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1443	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R1444	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1445	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1446	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1449	1-218-685-11	s	CESISTOR CHIP 510 1/16W (1608)
R1500	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1501	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1502	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1503	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1504	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1505	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1506	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1507	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1508	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1509	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1510	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1511	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1512	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1513	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1514	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1515	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1516	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1517	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1518	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1519	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1520	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1521	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1522	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1523	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1524	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1525	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1526	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1527	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1528	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1529	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1530	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1531	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1532	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1533	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1534	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1535	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1536	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1537	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1538	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1539	1-218-718-11	s	RESISTOR CHIP 12K 1/16W (1608)
R1541	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1542	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1543	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1544	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1545	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1546	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1548	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1549	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R1550	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)

Ref. No. or Q'ty	Part No.	SP	Description
R1551	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R1552	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R1553	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R1554	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R1555	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1556	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1557	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1558	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1559	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1560	1-218-179-11	s	RESISTOR,CHIP 10M 1/10W
R1600	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1603	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1604	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1605	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1606	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1607	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1608	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1610	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1700	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1701	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1702	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1703	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1704	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1705	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R1706	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1707	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R1708	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R1709	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1710	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1712	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1713	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1800	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1801	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1802	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1803	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1804	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1805	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1806	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1807	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1808	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1809	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1810	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1811	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1812	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1813	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1814	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1815	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1816	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1817	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1818	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1819	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1820	1-218-660-91	s	RESISTOR CHIP 47 1/16W (1608)
R1821	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1900	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1901	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1902	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1903	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1904	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1905	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1906	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1907	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1908	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1909	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1910	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1911	1-218-740-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1917	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1918	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1919	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1920	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1921	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1922	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1923	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1924	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1925	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1926	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1927	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R1928	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1929	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R2000	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R2001	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R2002	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R2003	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R2004	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3000	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3002	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3003	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3004	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3006	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3008	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3010	1-218-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3100	1-218-179-11	s	RESISTOR,CHIP 10M 1/10W
R3101	1-218-706-11	s	RESISTOR,CHIP 3.9K 1/16W(1608)
R3102	1-218-706-11	s	RESISTOR,CHIP 3.9K 1/16W(1608)
RB1	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB2	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB3	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB4	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB5	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB6	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB7	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB8	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB9	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB10	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB11	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB12	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB200	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB201	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB202	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB203	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB204	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB205	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB206	1-239-621-11	s	NETWORK RESISTOR 22 (1608)
RB600	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB601	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB602	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB603	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB604	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB605	1-233-936-11	s	NETWORK RESISTOR 10 (1608)

Ref. No. or Q'ty	Part No.	SP	Description
RB606	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB607	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB608	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB609	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB610	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB611	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB612	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB613	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB614	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB615	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB616	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB617	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB618	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB619	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB620	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB621	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB622	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB623	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB624	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB625	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB626	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB627	1-233-936-11	s	NETWORK RESISTOR 10 (1608)
RB628	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB629	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB630	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB631	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB632	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB700	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB701	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB702	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB703	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB704	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB705	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB707	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB708	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB709	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB710	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB711	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB800	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB801	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB802	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB803	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB804	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB805	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB806	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB807	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB808	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB900	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB901	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB902	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB903	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB904	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB905	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB906	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB907	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB908	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB909	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB910	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB911	1-239-409-11	s	RESISTOR NETWORK 47 (1608)

Ref. No. or Q'ty	Part No.	SP	Description
RB912	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB913	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB914	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB915	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB920	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB921	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB922	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB923	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1100	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB1101	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1102	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1103	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1104	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1105	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1201	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1202	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1203	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1204	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1300	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1301	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1302	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1500	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1501	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1502	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1503	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1504	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1505	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1506	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1507	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1508	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1509	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1600	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1601	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1602	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1603	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1604	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1605	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1606	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1607	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1608	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1609	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1610	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1611	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1612	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1613	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1700	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1701	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1702	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1703	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1704	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1705	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1706	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1707	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1708	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1709	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1710	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1711	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1712	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1713	1-236-907-11	s	RESISTOR BLOCK 100K (1608)

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RB1714	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1715	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1716	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1717	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1800	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1801	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1802	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1803	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1804	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1805	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1806	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1807	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1808	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1809	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1810	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1811	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1812	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1813	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1814	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1815	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1816	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1817	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1818	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1819	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1820	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1821	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1822	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB1823	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1824	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB1825	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1826	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB1827	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1828	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1829	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB1830	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB1831	1-236-907-11	s	RESISTOR BLOCK 100K (1608)
RB2000	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2001	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2002	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2003	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2004	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2005	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2006	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2007	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2008	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2009	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2010	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2011	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2012	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2013	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RB2014	1-239-711-11	s	NETWORK, RESISTOR 0 (1608)
RV2	1-237-033-11	s	RESISTOR,ADJ,CERMET 1K
RV5	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV6	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV7	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV8	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV9	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV10	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV11	1-237-032-11	s	RESISTOR,ADJ,CERMET 500
RV202	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
RV203	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
RV204	1-237-035-11	s	RESISTOR,ADJ,CERMET 5K
RV205	1-237-034-11	s	RESISTOR,ADJ,CERMET 2K
RV206	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV207	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV208	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV209	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV210	1-237-031-11	s	RESISTOR,ADJ,CERMET 200
RV211	1-237-032-11	s	RESISTOR,ADJ,CERMET 500
RV500	1-237-036-11	s	RESISTOR, ADJ,CERMET 10K
X400	1-781-417-11	s	OSCILLATOR, CRYSTAL
X401	1-781-418-11	s	OSCILLATOR, CRYSTAL
X1500	1-781-417-11	s	OSCILLATOR, CRYSTAL
X1502	1-781-418-11	s	OSCILLATOR, CRYSTAL
X1503	1-767-695-21	s	OSCILLATOR, CRYSTAL
X1504	1-767-694-11	s	OSCILLATOR, CRYSTAL
X1505	1-781-496-11	s	OSCILLATOR, CRYSTAL

VR-194 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-657-808-11	o	PRINTED WIRING BOARD, VR-194
CN1	1-566-758-11	o	PIN,CONNECTOR 3P
CN2	1-566-758-11	o	PIN,CONNECTOR 3P
CN3	1-566-758-11	o	PIN,CONNECTOR 3P
CN4	1-566-758-11	o	PIN,CONNECTOR 3P
CN558	1-569-762-11	s	CONNECTOR, BOARD TO BOARD 20P
R1	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R2	1-216-661-11	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R3	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R4	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R5	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R6	1-216-661-11	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R7	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R8	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R9	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R10	1-216-661-11	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R11	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R12	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
R13	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R14	1-216-661-11	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R15	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R16	1-216-295-91	s	RESISTOR, CHIP 0 (1/10W)
SW1	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
SW2	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
SW3	1-570-863-11	s	SWITCH,SLIDE (1-1-2)
SW4	1-570-863-11	s	SWITCH,SLIDE (1-1-2)

VR-206 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-657-809-11	o	PRINTED WIRING BOARD, VR-206
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
1pc	1-955-097-11	o	HARNESS, SUB (VR-VR)
RV1	1-237-790-11	s	RESISTOR,VAR,CARBON 10K

VR-254 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-673-089-11	o	PRINTED WIRING BOARD, VR-254
6pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
1pc	1-565-978-11	o	HOUSING, CONNCETOR 6P
RV1	1-241-577-11	s	VAR, CARBON 20K/20K

2-4. Frame List

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-690-131-11	s	CORD,CONNECTION (FLAT TYPE)
1pc	1-790-715-11	s	CABLE ASSY, COAXIAL
1pc	1-790-716-11	s	CABLE ASSY, COAXIAL
1pc	1-810-573-11	s	SENSOR, DEW CONDENSATION
1pc	1-959-696-11	o	HARNESS, SUB (J2)
CB1001 ⚠	1-533-951-11	s	BREAKER
(To CC-82 board)			
CN1001	1-561-336-00	s	CONNECTOR,COAXIAL
CN1003	1-561-336-00	s	CONNECTOR,COAXIAL
CN1004	1-561-336-00	s	CONNECTOR,COAXIAL
CN1014	1-561-336-00	s	CONNECTOR,COAXIAL
CN1015	1-561-336-00	s	CONNECTOR,COAXIAL
(To DC-85 board)			
CN1014	1-564-603-11	s	CONNECTOR(WITH DC SW) 4P
H1003	8-825-920-02	s	HEAD, AUDIO (EPS244-2103J)
H1004	8-825-770-74	s	HEAD, FE(EF291-21)
H1008	8-825-779-72	s	CTL HEAD, PS244-21D
J1001	1-507-743-21	s	JACK,STEREO MINI
J1002	1-507-863-51	s	JACK,LARGE TYPE (6.4)
M1002	8-835-534-01	s	MOTOR, DC(SCV-0702A/J-N)
M1003	8-835-441-01	s	MOTOR(R432276751A)DC 10W UNDER
M1004	8-835-440-01	s	MOTOR(DN20-Q7Z1B) DC 10W UNDER
M1005	8-835-441-01	s	MOTOR(R432276751A)DC 10W UNDER
M1006	1-698-335-11	s	MOTOR, DC (SVD-1489)
M1007	1-698-987-11	s	MOTOR, DC FAN (FLAT TYPE)
M1008	1-763-126-11	s	FAN, D.C.
M1009	1-763-126-11	s	FAN, D.C.
PM1001	1-454-334-51	s	SOLENOID,PLUNGER
PM1002	1-454-334-51	s	SOLENOID,PLUNGER
PM1003	1-454-383-31	s	SOLENOID, PLUNGER
PM1004	1-454-607-21	s	SOLENOID, PLUNGER

2-5. Cable List

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CABLE
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 Ref. No.
 or Q'ty  Part No.    SP Description

 HN001    ------------   HARNESS, SUB (EQ-DR2)
 (To CN1/DR-335 board)
 1pc      1-580-585-11 o HOUSING, CONNECTOR 18P
 6pcs     1-573-176-11 o TERMINAL, SOLDERLESS
 12pcs    1-580-599-11 o TERMINAL,SOLDERLESS
 (To CN305/EQ-76 board)
 1pc      1-580-585-11 o HOUSING, CONNECTOR 18P
 6pcs     1-573-176-11 o TERMINAL, SOLDERLESS
 12pcs    1-580-599-11 o TERMINAL,SOLDERLESS

 HN002    1-955-117-11 o HARNESS, SUB (EQ-DR)
 (To CN2/DR-335 board)
 1pc      1-580-582-11 o HOUSING,CONNECTOR 12P
 4pcs     1-573-176-11 o TERMINAL, SOLDERLESS
 8pcs     1-580-599-11 o TERMINAL,SOLDERLESS
 (To CN301/EQ-76 board)
 1pc      1-569-199-11 o HOUSING, CONNECTOR 6P
 2pcs     1-569-191-11 o TERMINAL, SOLDERLESS
 4pcs     1-569-193-11 o TERMINAL, SOLDERLESS
 (To CN303/EQ-76 board)
 1pc      1-569-199-41 o HOUSING, CONNECTOR 6P
 2pcs     1-569-191-11 o TERMINAL, SOLDERLESS
 4pcs     1-569-193-11 o TERMINAL, SOLDERLESS

 HN003    1-953-436-11 o HARNESS, SUB (TC9-CP19)
 (CN302/EQ-76 board to CN1/SR-56 board)

 HN004    1-959-842-11 o HARNESS, SUB (SST-FU2)
 (To CN452/CC-82 board)
 1pc      1-569-520-11 o HOUSING, CONNECTOR 10P
 8pcs     1-565-977-11 s TERMINAL, SOLDERLESS
 (To CN446/FU-76 board)
 1pc      1-565-978-11 o HOUSING, CONNCETOR 6P
 6pcs     1-565-977-11 s TERMINAL, SOLDERLESS
 (To CN108/SST-13 board)
 1pc      1-569-520-11 o HOUSING, CONNECTOR 10P
 10pcs    1-565-977-11 s TERMINAL, SOLDERLESS
 (To CN115/SST-13 board)
 1pc      1-569-619-11 o HOUSING, CONNECTOR 4P
 4pcs     1-565-977-11 s TERMINAL, SOLDERLESS

 HN005    ------------   HARNESS (CAM-CON2)
 (To CN1011/CAMERA connector)
 1pc      1-562-245-11 o CONNECTOR(RECEPTACLE), 26P
 (To CN453/CC-82 board)
 1pc      1-569-621-11 o HOUSING, CONNECTOR 12P
 10pcs    1-565-977-11 s TERMINAL, SOLDERLESS
 (To CN402/CP-337 board)
 1pc      1-569-519-11 o HOUSING, CONNECTOR 7P
 6pcs     1-766-387-11 o TERMINAL, SOLDERLESS
                         (CN402-pin1, 2, 3, 5, 6 and 7)
 1pc      1-565-977-11 s TERMINAL, SOLDERLESS
                         (CN402-pin4)
 (To CN444/FU-76 board)
 1pc      1-562-352-11 s HOUSING,CONNECTOR 2P
 2pcs     1-562-210-11 s CONTACT,CONNECTOR
 (To CN109/SST-13 board)
 1pc      1-569-619-11 o HOUSING, CONNECTOR 4P
 4pcs     1-565-977-11 s TERMINAL, SOLDERLESS

 HN006    1-959-703-11 o HARNESS, SUB (DCP-CC)
 (CN1/DCP-22 board to CN454/CC-82 board)

 HN008    1-955-104-11 o HARNESS, SUB (SST-ADA)
 (CN554/ADA-44 board to CN111/SST-13 board)
 (CN105/SST-13 board to CN1/CN-1752 board)
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(CABLE )

 Ref. No.
 or Q'ty  Part No.    SP Description

 HN009    1-955-100-11 o HARNESS, SUB (ADA-CP410)
 (To CN551/ADA-44 board)
 1pc      1-569-621-11 o HOUSING, CONNECTOR 12P
 12pcs    1-565-977-11 s TERMINAL, SOLDERLESS
 (To CN410/CP-337 board)
 1pc      1-569-621-11 o HOUSING, CONNECTOR 12P
 12pcs    1-565-977-11 s TERMINAL, SOLDERLESS

 HN010    1-955-101-11 o HARNESS, SUB (ADA-CP409)
 (To CN552/ADA-44 board)
 1pc      1-573-183-11 o HOUSING,CONNECTOR 13P
 12pcs    1-565-977-11 s TERMINAL, SOLDERLESS
 (To CN409/CP-337 board)
 1pc      1-573-183-11 o HOUSING,CONNECTOR 13P
 12pcs    1-565-977-11 s TERMINAL, SOLDERLESS

 HN011    1-955-113-11 o HARNESS, SUB (ADA-CP411)
 (CN553/ADA-44 board to CN411/CP-337 board)

 HN012    1-959-710-11 o HARNESS, SUB (VPR-CC 2)
 (CN451/CC-82 board to CN215/VPR-53 board)

 HN013    1-953-430-11 o HARNESS, SUB (AIF136-MB36)
 (CN456/CC-82 board to CN214/VPR-53 board)
 (CN921/MB-825 board to CN401/CP-337 board)

 HN014    1-959-709-11 o HARNESS, SUB (VPR-CC 1)
 (CN456/CC-82 board to CN214/VPR-53 board)

 HN015    ------------   HARNESS, SUB (VPR-PSW)
 (To CN609/PSW-68 board)
 1pc      1-569-196-11 o HOUSING, CONNECTOR 3P
 3pcs     1-569-193-11 o TERMINAL, SOLDERLESS
 (To CN212/VPR-53 board)
 1pc      1-569-196-11 o HOUSING, CONNECTOR 3P
 3pcs     1-569-193-11 o TERMINAL, SOLDERLESS

 HN016    1-959-706-11 o HARNESS, SUB (VPR-ADA 55)
 (CN555/ADA-44 board to CN206/VPR-53 board)

 HN017    1-959-707-11 o HARNESS, SUB (VPR-ADA 56)
 (CN556/ADA-44 board to CN207/VPR-53 board)

 HN018    1-959-708-11 o HARNESS, SUB (VPR-ADA 59)
 (CN559/ADA-44 board to CN208/VPR-53 board)

 HN019    1-955-097-11 o HARNESS, SUB (VR-VR)
 (To CN1, CN2, CN3 or CN4/VR-194 board)
 1pc      1-569-618-11 o HOUSING, CONNECTOR 3P
 3pcs     1-565-977-11 s TERMINAL, SOLDERLESS
 (To VR-206 board)
 1pc      1-569-618-11 o HOUSING, CONNECTOR 3P
 3pcs     1-565-977-11 s TERMINAL, SOLDERLESS

 HN020    1-959-705-11 o HARNESS, SUB (SST-CP 2)
 2pcs     1-568-523-11 s HOUSING, CONNECTOR 13P

 HN021    1-955-098-11 o HARNESS, SUB (MB-ADA)
 (To CN557/ADA-44 board)
 1pc      1-569-618-11 o HOUSING, CONNECTOR 3P
 3pcs     1-565-977-11 s TERMINAL, SOLDERLESS
 (To CN914/MB-825 board)
 1pc      1-569-618-11 o HOUSING, CONNECTOR 3P
 3pcs     1-565-977-11 s TERMINAL, SOLDERLESS

 HN023    1-955-108-11 o HARNESS, SUB (FU-CP)
 (CN445/FU-76 board to CN2/DC-85 board)
 (CN408/CP-337 board to CN1/DC-85 board)
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(CABLE)

Ref. No. or Q'ty	Part No.	SP	Description
HN024	------------		HARNESS (CP09-DUS)
(To CN421/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To CN1/DUS-173 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
HN025	------------		HARNESS, SUB (CP-VR205)
(To CN407/CP-337 board)			
1pc	1-565-978-11	o	HOUSING, CONNCETOR 6P
6pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To CN1/VR-205 board)			
1pc	1-565-978-11	o	HOUSING, CONNCETOR 6P
6pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
HN026	1-955-094-12	o	HARNESS, SUB (MB-DR1)
(To CN941/MB-825 board)			
1pc	1-565-979-11	o	HOUSING, CONNECTOR 8P
8pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To CN1/DR-335 board)			
1pc	1-565-979-11	o	HOUSING, CONNECTOR 8P
8pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
HN027	1-955-115-13	o	HARNESS, SUB (SST-DSUB)
(To CN106/SST-13 board)			
(To CN1010/REMOTE CONNECTOR)			
HN028	1-959-702-11	o	HARNESS, SUB (SST-REM)
(CN112/SST-13 board to CN1/CN-1795)			
HN029	1-948-409-11	o	HARNESS (MB44-TTOPA)
(CN944/MB-825 board to TAPE TOP SENSOR)			
(CN958/MB-825 board to TAPE END SENSOR)			
(TAPE TOP SENSOR)			
L1001	1-543-316-21	s	HEAD,SENSING (SMALL TYPE)
(TAPE END SENSOR)			
L1003	1-543-316-21	s	HEAD,SENSING (SMALL TYPE)
(To CN944/MB-825 board)			
1pc	1-569-195-21	o	HOUSING, CONNECTOR 2P
2pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CN958/MB-825 board)			
1pc	1-569-195-21	o	HOUSING, CONNECTOR 2P
2pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
HN030	1-955-119-12	o	HARNESS, SUB (EQ-AH)
(To CN304/EQ-76 board)			
1pc	1-569-196-31	o	HOUSING, CONNECTOR 3P
2pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CUE HEAD/AH-52 board)			
HN031	1-955-121-11	o	HARNESS, SUB (MB-AH2)
(To CN947/MB-825 board)			
1pc	1-569-196-41	o	HOUSING, CONNECTOR 3P
2pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To TC HEAD/AH-52 board)			
HN032	1-955-120-11	o	HARNESS, SUB (MB-AH1)
(To CN948/MB-825 board)			
1pc	1-569-199-11	o	HOUSING, CONNECTOR 6P
4pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To TC ERASE and CUE ERASE HEADS/AH-52 board)			

(CABLE)

Ref. No. or Q'ty	Part No.	SP	Description
HN033	1-955-122-11	o	HARNESS, SUB (MB-FE)
(To CN956/MB-825 board)			
1pc	1-569-196-21	o	HOUSING, CONNECTOR 3P
1pc	1-569-191-11	o	TERMINAL, SOLDERLESS
2pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To FULL ERASE HEAD)			
HN034	------------		HARNESS, SUB (MB54-TR)
(To CN954/MB-825 board)			
4pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CN1/TR-57 board)			
1pc	1-562-737-11	o	HOUSING,CONNECTOR 4P
4pcs	1-564-831-11	o	CONNECTOR CONTACT
HN035	1-948-405-12	o	HARNESS (MB56-CTL)
(To CN1/CTL head)			
1pc	1-562-735-11	s	HOUSING,CONNECTOR 2P
2pcs	1-564-831-11	o	CONNECTOR CONTACT
(To CN955/MB-825 board)			
1pc	1-569-196-11	o	HOUSING, CONNECTOR 3P
3pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
HN036	------------		HARNESS (MB57-CS)
(To CN957/MB-825 board)			
7pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CN1/CS-26 board)			
7pcs	1-564-831-11	o	CONNECTOR CONTACT
HN037	1-948-401-12	s	HARNESS (CS25-26)
(To CN954/MB-825 board)			
1pc	1-569-196-11	o	HOUSING, CONNECTOR 3P
3pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CN1/TR-57 board)			
1pc	1-569-196-11	o	HOUSING, CONNECTOR 3P
3pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
HN038	1-955-105-11	o	HARNESS, SUB (SST-SE)
(CN101/SST-13 board to CN1/SE-510 board)			
HN039	1-955-124-11	o	HARNESS, SUB (SST-DET15)
(To CN113/SST-13 board)			
1pc	1-569-196-41	o	HOUSING, CONNECTOR 3P
3pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CN1/DET-15 board)			
1pc	1-569-196-41	o	HOUSING, CONNECTOR 3P
3pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
HN040	1-955-123-11	o	HARNESS, SUB (SST-DET26)
(To CN102/SST-13 board)			
1pc	1-569-197-11	o	HOUSING, CONNECTOR 4P
4pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CN1/DET-36 board)			
1pc	1-569-197-11	o	HOUSING, CONNECTOR 4P
4pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
HN041	1-953-435-11	o	HARNESS, SUB (CAP-HN14)
(CN107/SST-13 board to CN1/CAPSTAN MOTOR)			
HN042	1-959-843-11	o	HARNESS, SUB (FAN)
(To CN1000/SST-13 board)			
1pc	1-764-194-11	o	HOUSING, CONNECTOR 4P
4pcs	1-695-215-11	o	TERMINAL,SOLDERLESS
(To CN1/CN-1926 board)			
1pc	1-764-194-11	o	HOUSING, CONNECTOR 4P
4pcs	1-695-215-11	o	TERMINAL,SOLDERLESS
HN043	1-953-429-11	o	HARNESS, SUB (TC8-CP18)
(CN104/SST-13 board to CN462/KEY-315 board)			

(CABLE)

Ref. No. or Q'ty	Part No.	SP	Description
HN044	1-959-704-11	o	HARNESS, SUB (SST-KEY 3)
(CN103/SST-13 board to CN461/KEY-315 board)			
HN045	1-955-095-11	o	HARNESS, SUB (KEY-LCD)
(To CN1/AUDIO METER)			
1pc	1-569-201-11	o	HOUSING, CONNECTOR 8P
8pcs	1-569-193-11	o	TERMINAL, SOLDERLESS
(To CN463/KEY-315 board)			
1pc	1-569-520-11	o	HOUSING, CONNECTOR 10P
10pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
HN046	------------		HARNESS, SUB (BREAKER-PSW2)
(To CN602/PSW-67 board)			
1pc	1-694-565-11	o	TERMINAL, FASTEN
(To Cb1001/CIRCUIT BREAKER)			
1pc	1-694-566-11	o	TERMINAL, FASTEN (FLAG TYPE)
HN047	1-959-844-12	o	HARNESS, SUB (BATT-CON2)
(To CN1/BATTERY CONNECTOR)			
1pc	1-766-377-12	s	CONNECTOR, BATTERY
(To CN442/FU-76 board)			
1pc	1-694-565-11	o	TERMINAL, FASTEN
(To CN915/MB-825 board)			
1pc	1-569-617-11	o	HOUSING, CONNECTOR 2P
2pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To CN932/MB-825 board)			
1pc	1-694-566-11	o	TERMINAL, FASTEN (FLAG TYPE)
HN048	------------		HARNESS, SUB (EXT-DC GND2)
(To CN931/MB-825 board)			
1pc	1-694-566-11	o	TERMINAL, FASTEN (FLAG TYPE)
(To CN1014/EXT DC IN connector)			
HN049	------------		HARNESS, SUB (HOT-LINE2)
(To CN441/FU-76 board)			
1pc	1-694-565-11	o	TERMINAL, FASTEN
(To MB-825 board)			
1pc	1-801-022-11	s	DISPLAY MODULE, LIQUID CRYSTAL
HN050	1-959-698-12	o	HARNESS, SUB (BRAKER-FU3)
(To CN448/FU-76 board)			
1pc	1-694-565-11	o	TERMINAL, FASTEN
(To CB1001/CIRCUIT BREAKER)			
1pc	1-694-566-11	o	TERMINAL, FASTEN (FLAG TYPE)
HN051	1-959-697-12	o	HARNESS, SUB (BRAKER-FU2)
(To CN447/FU-76 board)			
1pc	1-694-565-11	o	TERMINAL, FASTEN
(To CN1014/EXT DC IN connector)			
HN052	------------		HARNESS (XLR-(A))
(To CN403/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO IN CH-1 connector)			
1pc	1-566-616-11	s	CONNECTOR,XLR (F) (4 GANG)
(To CN404/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO IN CH-2 connector)			
1pc	1-566-616-11	s	CONNECTOR,XLR (F) (4 GANG)
(To CN405/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO IN CH-3 connector)			
1pc	1-566-616-11	s	CONNECTOR,XLR (F) (4 GANG)

(CABLE)

Ref. No. or Q'ty	Part No.	SP	Description
(To CN406/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO IN CH-4 connector)			
1pc	1-566-616-11	s	CONNECTOR,XLR (F) (4 GANG)
HN053	------------		HARNESS (XLR-(B))
(To CN414/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO OUT CH-1 connector)			
1pc	1-566-617-11	s	CONNECTOR,XLR (M) (4 GANG)
(To CN415/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO OUT CH-2 connector)			
1pc	1-566-617-11	s	CONNECTOR,XLR (M) (4 GANG)
(To CN416/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO OUT CH-3 connector)			
1pc	1-566-617-11	s	CONNECTOR,XLR (M) (4 GANG)
(To CN417/CP-337 board)			
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
3pcs	1-565-977-11	s	TERMINAL, SOLDERLESS
(To AUDIO OUT CH-4 connector)			
1pc	1-566-617-11	s	CONNECTOR,XLR (M) (4 GANG)
HN054	------------		HARNESS (BP-90)
J1003	1-507-905-11	s	JACK, DC

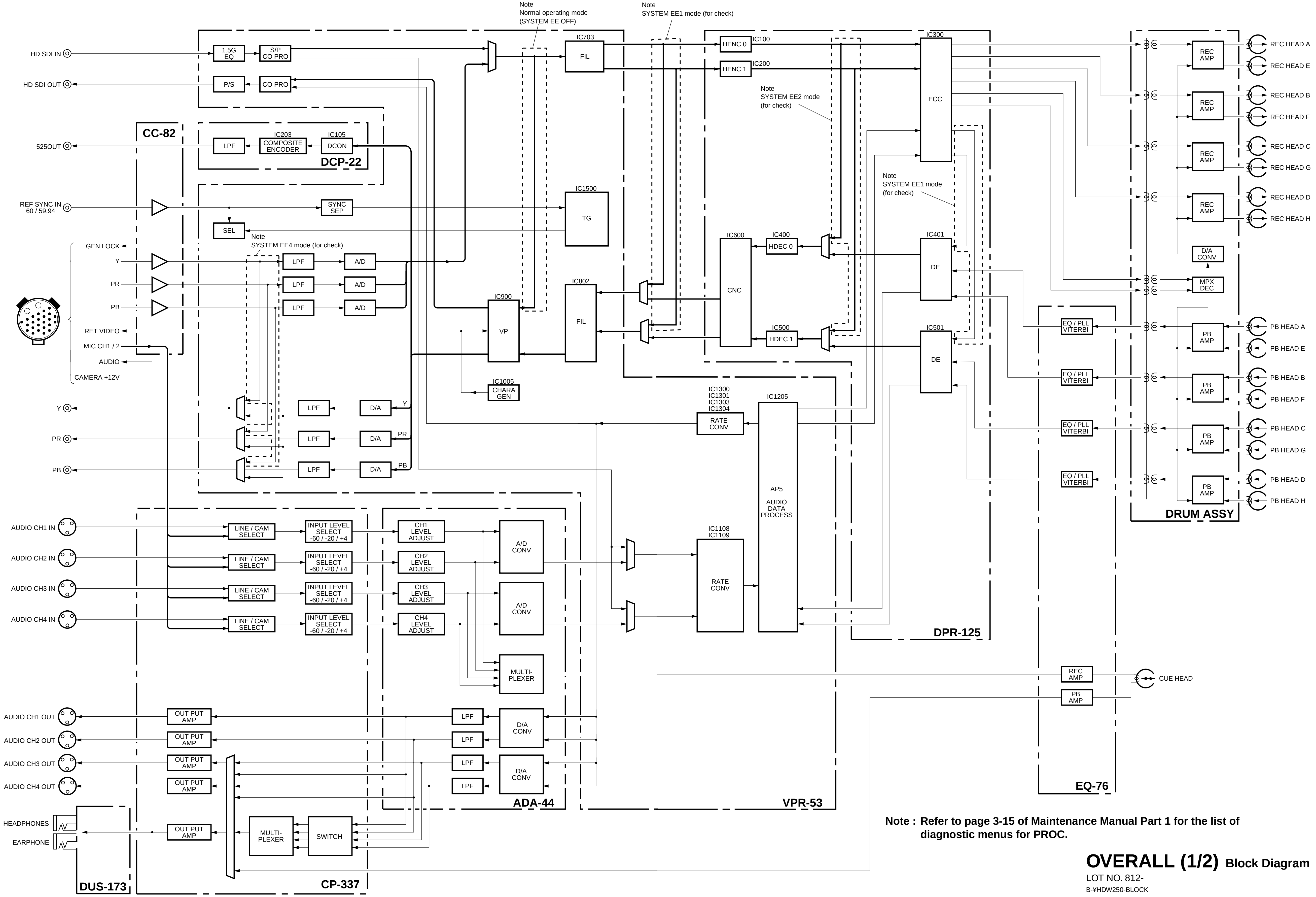
2-6. Packing Materials & Supplied Accessories

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6772-374-A	s	BELT ASSY,SHOULDER (ACRYLIC)
1pc	3-704-296-01	o	BAG,POLYETHYLENE

2-7. Optional Fixtures

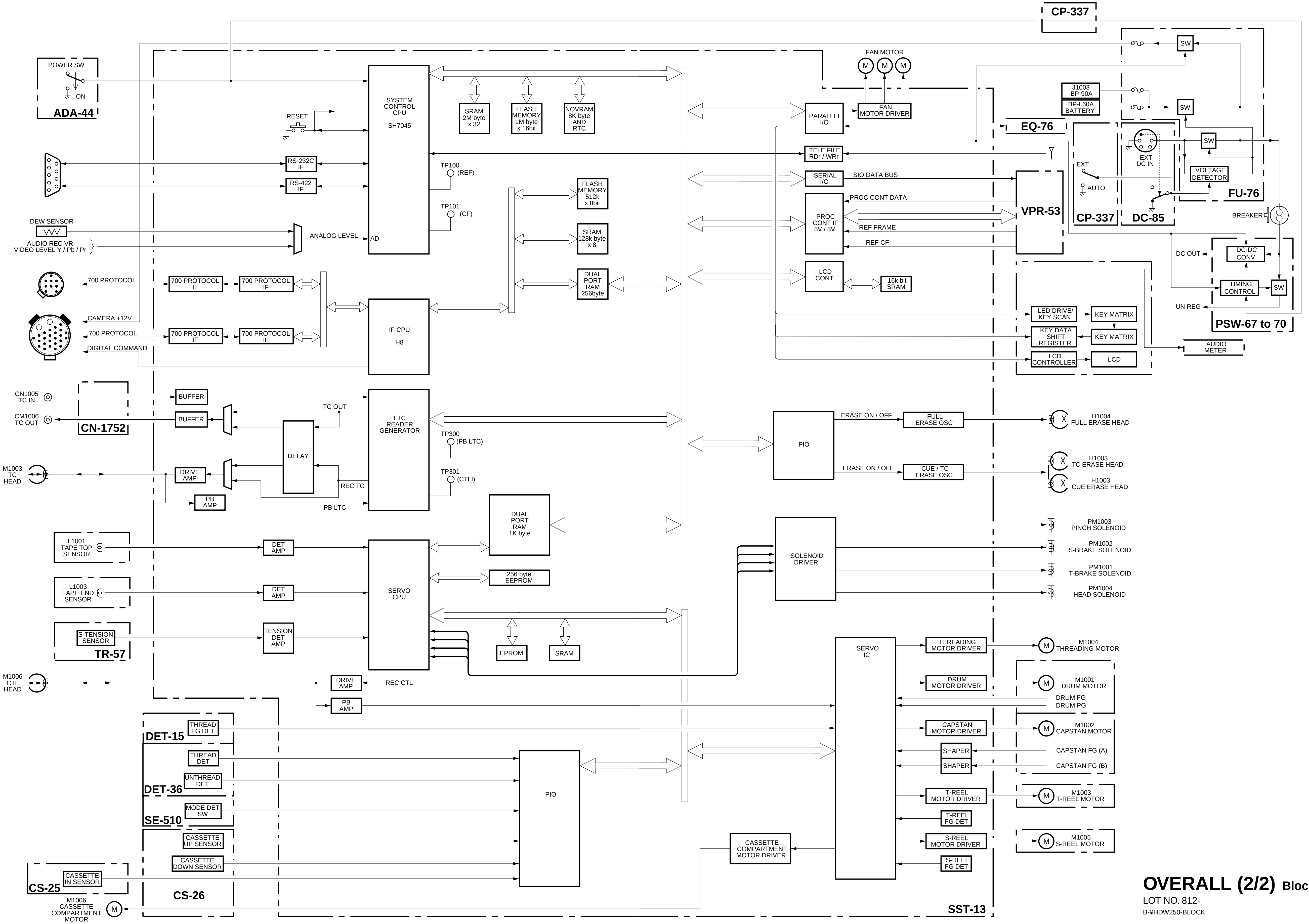
Part No.	SP	Description
J-6002-820-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL(3)
J-6002-830-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL(2)
J-6031-840-B	o	MULTI CONNECTOR CABLE (CIBNC)
J-6080-840-A	o	SMALL MIRROR
J-6086-570-A	o	REFERENCE FLAT PLATE
J-6087-000-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL(5)
J-6152-450-A	o	WIRE CLEARANCE GAUGE SET
J-6321-500-A	o	DRIVER(TOOL), TG ADJUSTMENT
J-6322-420-A	o	TAPE GUIDE ADJUSTMENT DRIVER (45)
J-6322-420-3	o	TG DRIVER SPARE BIT (ACROSS 0.89)
J-6323-530-A	o	STOP WASHER FASTENING TOOL
J-6323-890-A	o	TORQUE CASSETTE (FWD BACKTEN.)
J-6324-030-A	o	DRUM ECCENTRICITY GAUGE (7)
J-6325-110-A	o	TORQUE SCREWDRIVER'S BIT (FOR M1.4)
J-6325-380-A	o	TORQUE SCREWDRIVER'S BIT (FOR M2)
J-6325-400-A	o	TORQUE SCREWDRIVER'S (FOR 3 KG)
J-6325-530-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL(6)
J-6326-120-A	o	HEXAGON BIT
J-6326-530-A	o	CASSETTE REFERENCE PLATE (L)
J-6326-940-A	o	S SIDE GAUGE
J-6329-350-A	o	REEL TABLE HEIGHT GAUGE, MW-935
J-6421-440-A	o	EXTENSION HARNESS, AUDIO
J-6510-400-A	o	EXTENSION HARNESS, VIDEO
J-7031-030-A	o	S-TENSION ARM POSITIONING PIN
J-7031-040-A	o	WEIGHT FOR S-TENSION ADJUSTMENT (W76.7)
J-7031-050-A	o	WEIGHT FOR S-TENSION (W 44)
J-7031-260-A	o	MASTER BLOCK (T2)
J-7031-270-A	o	MASTER BLOCK (S2)
J-7031-280-A	o	S-TEN ADJUSTING TABLE
J-7031-450-A	o	END SENSOR POSITIONING TOOL
J-7031-460-A	o	TORQUE SCREWDRIVER'S HEXAGONAL BIT (ACROSS 1.27)
A-8319-485-A	o	CDS-20 ASSY
A-8322-838-A	o	CN-1936 MOUNT
1-772-003-11	o	MEMORY CARD (2MB), MB98A81183
7-651-000-10	o	SONY GREASE, SGL-601 (50 G)
7-651-000-11	o	SONY GREASE, SGL-801 (50 G)
7-661-018-18	o	MITSUBISHI DIAMOND MACHINE OIL HYDRO FLUID NT-68
7-700-736-05	o	L-SHAPED HEXAGONAL WRENCH (D=1.5mm)
7-700-736-06	o	L-SHAPED HEXAGONAL WRENCH (D=0.9mm)
8-960-076-01	o	ALIGNMENT TAPE, HR5-1A
8-960-076-11	o	ALIGNMENT TAPE, HR2-1A
9-911-053-00	o	THICKNESS GAUGE
9-919-573-01	o	CLEANING FLUID

Section 3
Block Diagrams


Note
Normal operating mode
(SYSTEM EE OFF)
Note
SYSTEM EE1 mode (for check)
HD SDI IN
HD SDI OUT
1.5G EQ
S/P CO PRO
P/S
CO PRO
IC703
FIL
IC100
HENC 0
IC200
HENC 1
IC300
ECC
CC-82
525OUT
LPF
IC203
COMPOSITE ENCODER
IC105
DCON
DCP-22
Note
SYSTEM EE2 mode
(for check)
REF SYNC IN
60 / 59.94
SYNC SEP
IC1500
TG
SEL
Note
SYSTEM EE4 mode (for check)
GEN LOCK
Y
PR
PB
RET VIDEO
MIC CH1 / 2
AUDIO
CAMERA +12V
LPF
A/D
IC900
VP
IC802
FIL
IC600
CNC
IC400
HDEC 0
IC500
HDEC 1
Note
SYSTEM EE1 mode
(for check)
IC401
DE
IC501
DE
IC1005
CHARA GEN
IC1300
IC1301
IC1303
IC1304
RATE CONV
IC1205
AP5
AUDIO DATA PROCESS
IC1108
IC1109
RATE CONV
D/A
Y
PR
PB
AUDIO CH1 IN
AUDIO CH2 IN
AUDIO CH3 IN
AUDIO CH4 IN
LINE / CAM SELECT
INPUT LEVEL SELECT -60 / -20 / +4
CH1 LEVEL ADJUST
CH2 LEVEL ADJUST
CH3 LEVEL ADJUST
CH4 LEVEL ADJUST
A/D CONV
MULTI-PLEXER
D/A CONV
AUDIO CH1 OUT
AUDIO CH2 OUT
AUDIO CH3 OUT
AUDIO CH4 OUT
OUT PUT AMP
HEADPHONES
EARPHONE
SWITCH
DUS-173
CP-337
ADA-44
VPR-53
DPR-125
EQ-76
REC AMP
PB AMP
CUE HEAD
EQ / PLL VITERBI
D/A CONV
MPX DEC
REC HEAD A
REC HEAD E
REC HEAD B
REC HEAD F
REC HEAD C
REC HEAD G
REC HEAD D
REC HEAD H
PB HEAD A
PB HEAD E
PB HEAD B
PB HEAD F
PB HEAD C
PB HEAD G
PB HEAD D
PB HEAD H
DRUM ASSY

Note : **Refer to page 3-15 of Maintenance Manual Part 1 for the list of diagnostic menus for PROC.**

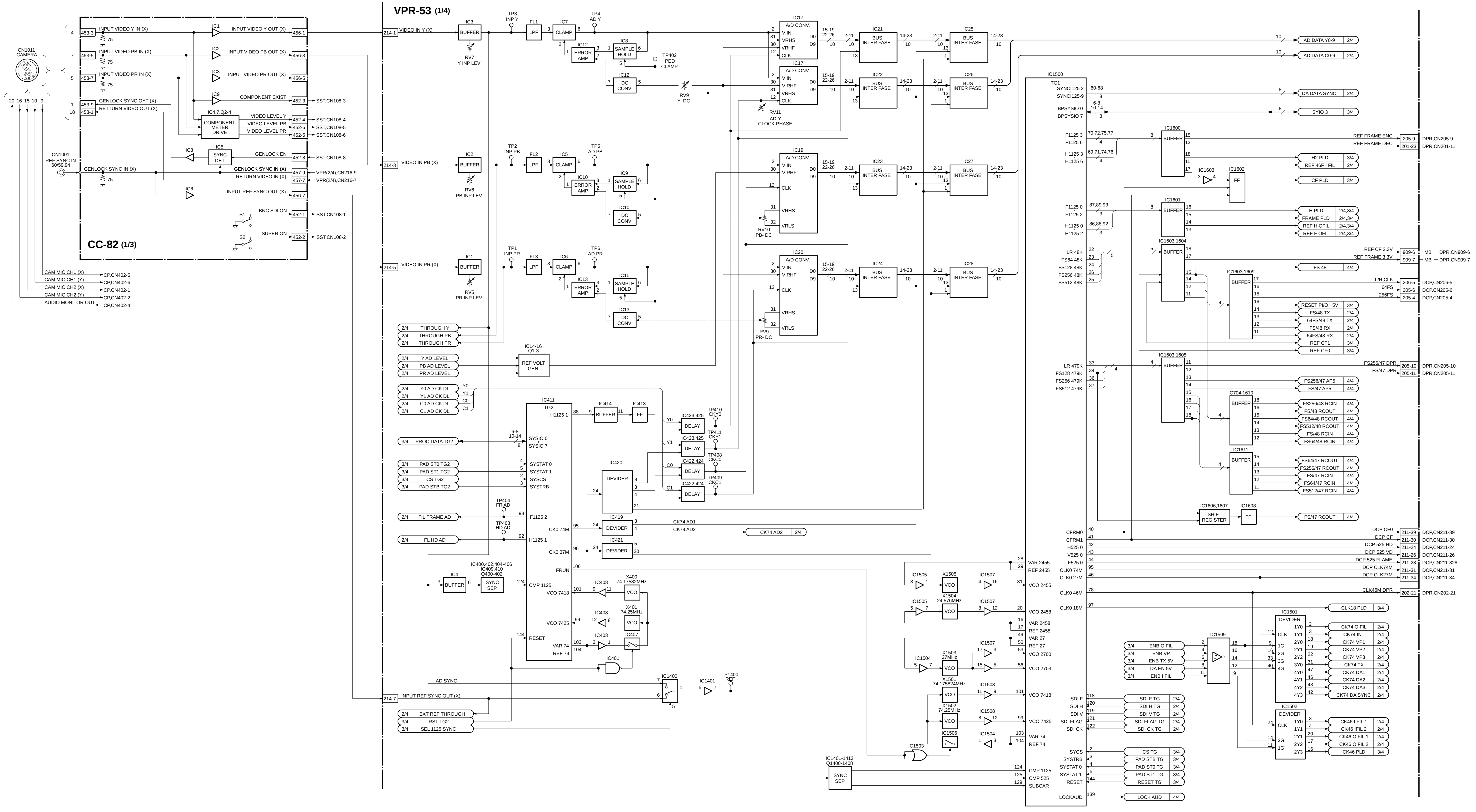
OVERALL (1/2) Block Diagram
LOT NO. 812-
B-¥HDW250-BLOCK


CP-337
POWER SW
ON
ADA-44
RESET
SYSTEM CONTROL CPU
SH7045
SRAM 2M byte x 32
FLASH MEMORY 1M byte x 16bit
NOVRAM 8K byte AND RTC
FAN MOTOR
M
PARALLEL I/O
FAN MOTOR DRIVER
J1003 BP-90A
BP-L60A BATTERY
SW
EQ-76
TELE FILE RDr / WRr
RS-232C IF
RS-422 IF
TP100 (REF)
TP101 (CF)
FLASH MEMORY 512k x 8bit
SRAM 128k byte x 8
DUAL PORT RAM 256byte
SERIAL I/O
SIO DATA BUS
PROC CONT IF 5V / 3V
PROC CONT DATA
REF FRAME
REF CF
VPR-53
EXT
AUTO
EXT DC IN
VOLTAGE DETECTOR
FU-76
CP-337
DC-85
BREAKER
DEW SENSOR
AUDIO REC VR
VIDEO LEVEL Y / Pb / Pr
ANALOG LEVEL
AD
LCD CONT
16k bit SRAM
DC OUT
DC-DC CONV
TIMING CONTROL
UN REG
PSW-67 to 70
700 PROTOCOL
700 PROTOCOL IF
CAMERA +12V
DIGITAL COMMAND
IF CPU
H8
LED DRIVE/ KEY SCAN
KEY MATRIX
KEY DATA SHIFT REGISTER
LCD CONTROLLER
LCD
AUDIO METER
CN1005 TC IN
CM1006 TC OUT
BUFFER
CN-1752
TC OUT
LTC READER GENERATOR
TP300 (PB LTC)
TP301 (CTLI)
DELAY
REC TC
M1003 TC HEAD
DRIVE AMP
PB AMP
PB LTC
PIO
ERASE ON / OFF
FULL ERASE OSC
H1004 FULL ERASE HEAD
CUE / TC ERASE OSC
H1003 TC ERASE HEAD
H1003 CUE ERASE HEAD
DUAL PORT RAM 1K byte
L1001 TAPE TOP SENSOR
DET AMP
SERVO CPU
256 byte EEPROM
SOLENOID DRIVER
PM1003 PINCH SOLENOID
PM1002 S-BRAKE SOLENOID
PM1001 T-BRAKE SOLENOID
PM1004 HEAD SOLENOID
L1003 TAPE END SENSOR
S-TENSION SENSOR
TENSION DET AMP
TR-57
EPROM
SRAM
SERVO IC
THREADING MOTOR DRIVER
M1004 THREADING MOTOR
M1006 CTL HEAD
REC CTL
DRUM MOTOR DRIVER
M1001 DRUM MOTOR
DRUM FG
DRUM PG
THREAD FG DET
DET-15
CAPSTAN MOTOR DRIVER
M1002 CAPSTAN MOTOR
SHAPER
CAPSTAN FG (A)
CAPSTAN FG (B)
THREAD DET
UNTHREAD DET
DET-36
MODE DET SW
SE-510
T-REEL MOTOR DRIVER
M1003 T-REEL MOTOR
T-REEL FG DET
CASSETTE UP SENSOR
CASSETTE DOWN SENSOR
CASSETTE COMPARTMENT MOTOR DRIVER
S-REEL MOTOR DRIVER
M1005 S-REEL MOTOR
S-REEL FG DET
CASSETTE IN SENSOR
CS-25
CS-26
M1006 CASSETTE COMPARTMENT MOTOR
SST-13

OVERALL (2/2) Block Diagram

LOT NO. 812-

B-¥HDW250-BLOCK

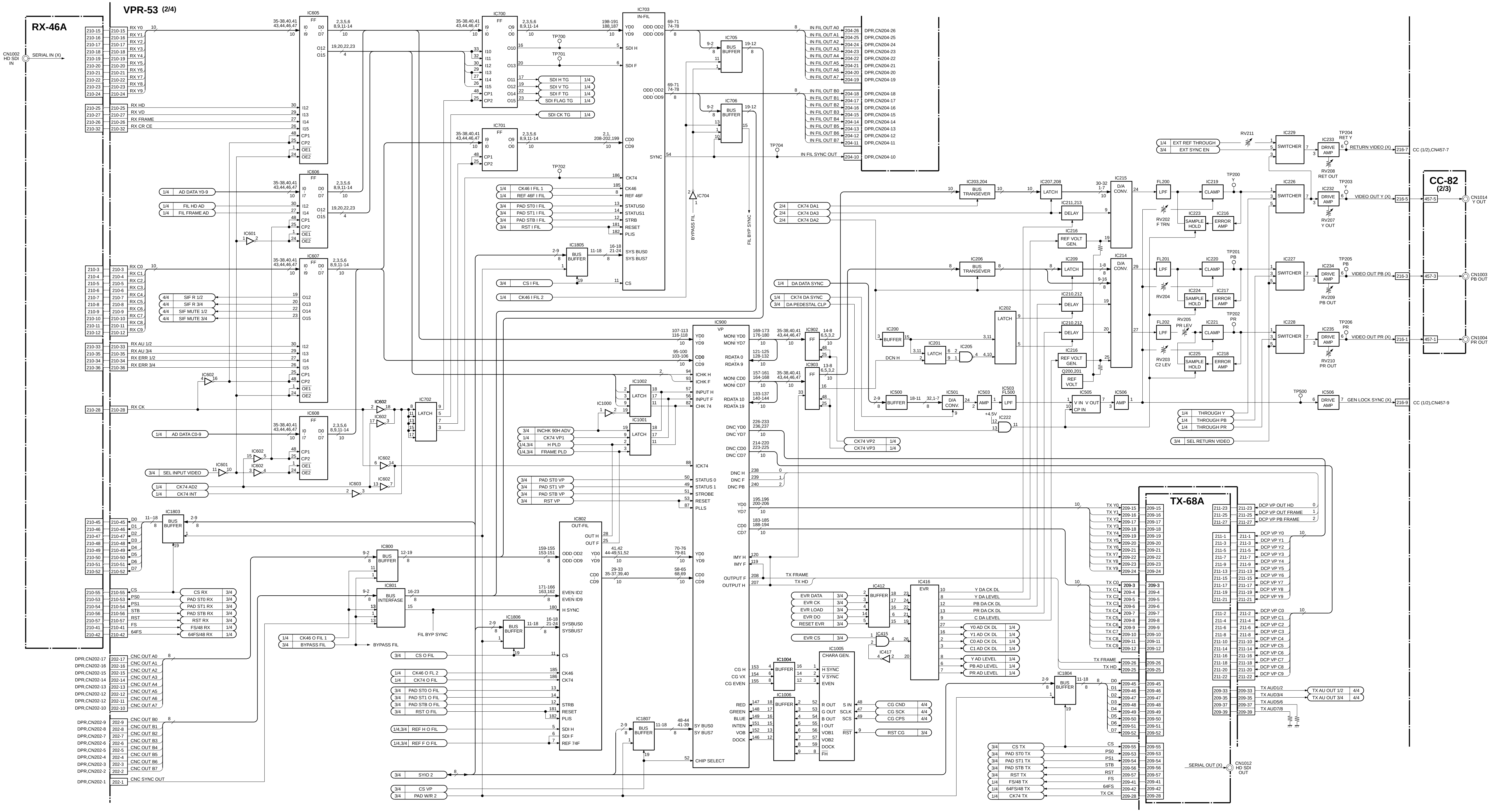

CN1011 CAMERA
CC-82 (1/3)
VPR-53 (1/4)
CN1001 REF SYNC IN 60/59.94
INPUT VIDEO Y IN (X)
INPUT VIDEO PB IN (X)
INPUT VIDEO PR IN (X)
GENLOCK SYNC OYT (X)
RETTURN VIDEO OUT (X)
GENLOCK SYNC IN (X)
COMPONENT METER DRIVE
SYNC DET
BNC SDI ON
SUPER ON
CAM MIC CH1 (X)
CAM MIC CH1 (Y)
CAM MIC CH2 (X)
CAM MIC CH2 (Y)
AUDIO MONITOR OUT
VIDEO IN Y (X)
VIDEO IN PB (X)
VIDEO IN PR (X)
BUFFER
LPF
CLAMP
ERROR AMP
SAMPLE HOLD
DC CONV
A/D CONV.
BUS INTER FASE
RV7 Y INP LEV
RV6 PB INP LEV
RV5 PR INP LEV
RV9 Y- DC
RV11 AD-Y CLOCK PHASE
RV10 PB- DC
RV9 PR- DC
TP402 PED CLAMP
REF VOLT GEN.
IC411 TG2
DEVIDER
DELAY
SYNC SEP
VCO
IC1500 TG1
SHIFT REGISTER
FF
AD DATA Y0-9
AD DATA C0-9
DA DATA SYNC
SYIO 3
INPUT REF SYNC OUT (X)
AD SYNC
CK74 AD2
LOCK AUD

CC-82, VPR-53 (1/4)

VIDEO SIGNAL PROCESSOR (1)

LOT NO. 812-

B-HDW-250_VPR-53_011_1

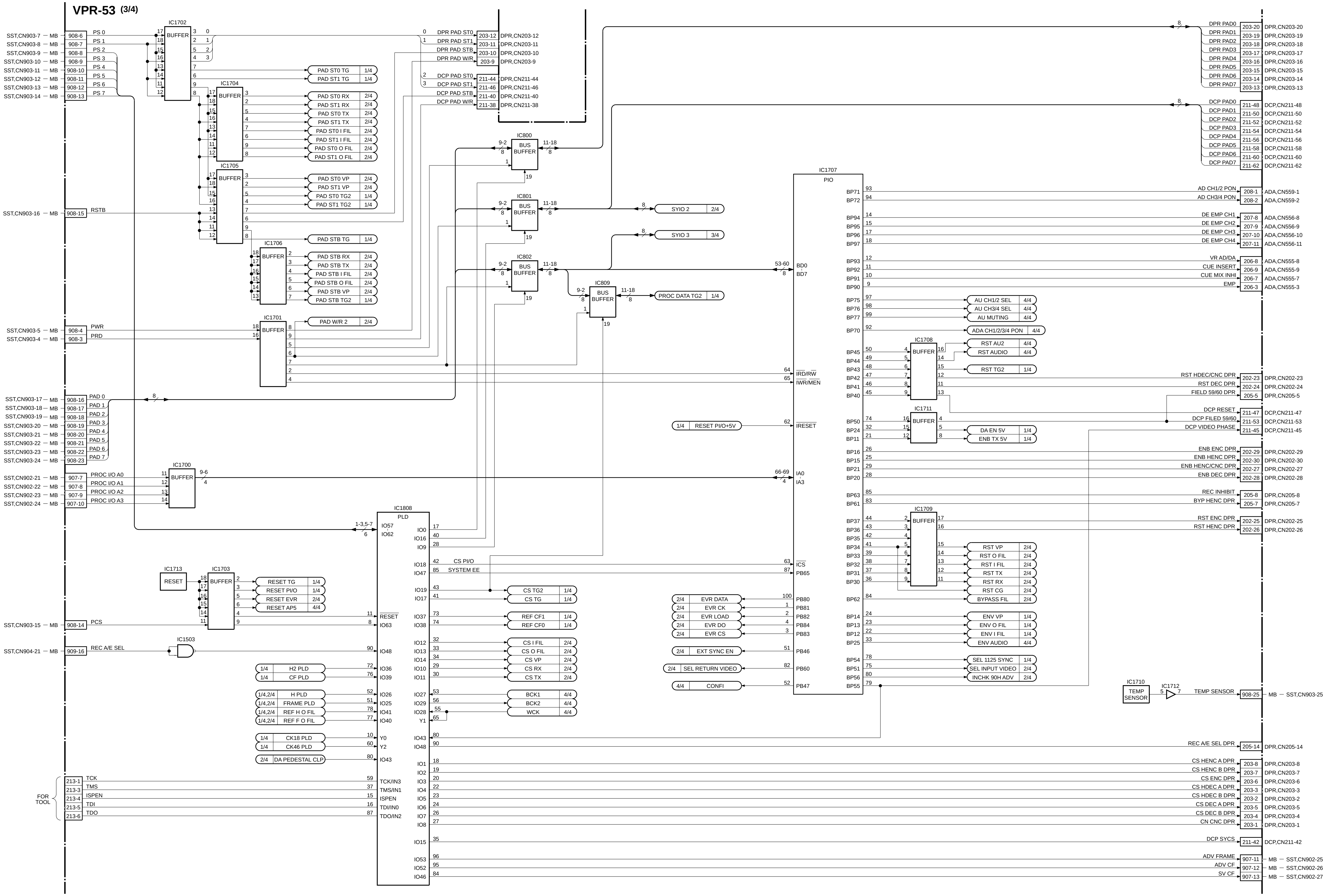

RX-46A
VPR-53 (2/4)
TX-68A
CC-82 (2/3)
CN1002 HD SDI IN
SERIAL IN (X)
IC605 FF
IC606 FF
IC607 FF
IC608 FF
IC700 FF
IC701 FF
IC703 IN-FIL
IC705 BUS BUFFER
IC706 BUS BUFFER
IC704
IC702 LATCH
IC1805 BUS BUFFER
IC1803 BUS BUFFER
IC800 BUS BUFFER
IC801 BUS INTERFACE
IC802 OUT-FIL
IC1806 BUS BUFFER
IC1807 BUS BUFFER
IC900 VP
IC1002 LATCH
IC1001 LATCH
IC902 FF
IC903 FF
IC1004 BUFFER
IC1006 BUFFER
IC1005 CHARA GEN.
IC412 BUFFER
IC416 EVR
IC203,204 BUS TRANSEVER
IC206 BUS TRANSEVER
IC207,208 LATCH
IC209 LATCH
IC211,213 DELAY
IC210,212 DELAY
IC216 REF VOLT GEN.
IC215 D/A CONV.
IC214 D/A CONV.
IC202 LATCH
IC200 BUFFER
IC201 LATCH
IC205
IC500 BUFFER
IC501 D/A CONV.
IC503 AMP
IC503 FL500 LPF
IC505 V IN V OUT CP IN
IC506 AMP
IC222
FL200 LPF
FL201 LPF
FL202 LPF
IC219 CLAMP
IC220 CLAMP
IC221 CLAMP
IC223 SAMPLE HOLD
IC224 SAMPLE HOLD
IC225 SAMPLE HOLD
IC216 ERROR AMP
IC217 ERROR AMP
IC218 ERROR AMP
IC229 SWITCHER
IC226 SWITCHER
IC227 SWITCHER
IC228 SWITCHER
IC233 DRIVE AMP
IC232 DRIVE AMP
IC234 DRIVE AMP
IC235 DRIVE AMP
IC506 DRIVE AMP
IC1804 BUS BUFFER
RETURN VIDEO (X)
VIDEO OUT Y (X)
VIDEO OUT PB (X)
VIDEO OUT PR (X)
GEN LOCK SYNC (X)
CN1014 Y OUT
CN1003 PB OUT
CN1004 PR OUT
CN1012 HD SDI OUT
SERIAL OUT (X)
BYPASS FIL
FIL BYP SYNC

RX-46A, TX-68A, VPR-53 (2/4)

VIDEO SIGNAL PROCESSOR (2)

LOT NO. 812-

B-HDW-250_VPR-53_011_2

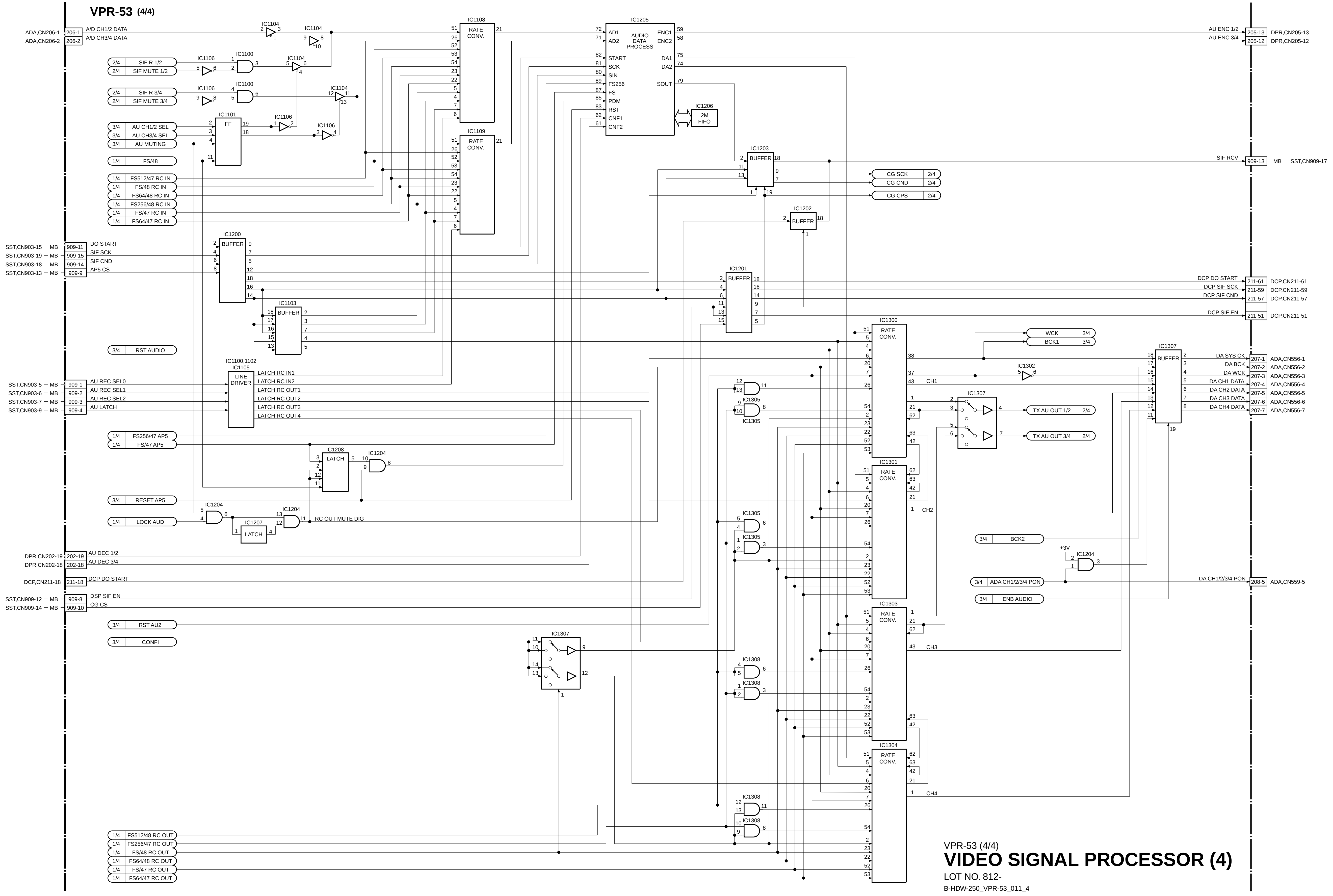

VPR-53 (3/4)
IC1702 BUFFER
IC1704 BUFFER
IC1705 BUFFER
IC1706 BUFFER
IC1701 BUFFER
IC1700 BUFFER
IC1713 RESET
IC1703 BUFFER
IC1503
IC1808 PLD
IC800 BUS BUFFER
IC801 BUS BUFFER
IC802 BUS BUFFER
IC809 BUS BUFFER
IC1707 PIO
IC1708 BUFFER
IC1711 BUFFER
IC1709 BUFFER
IC1710 TEMP SENSOR
IC1712
SST,CN903-7 — MB 908-6 PS 0
SST,CN903-8 — MB 908-7 PS 1
SST,CN903-9 — MB 908-8 PS 2
SST,CN903-10 — MB 908-9 PS 3
SST,CN903-11 — MB 908-10 PS 4
SST,CN903-12 — MB 908-11 PS 5
SST,CN903-13 — MB 908-12 PS 6
SST,CN903-14 — MB 908-13 PS 7
SST,CN903-16 — MB 908-15 RSTB
SST,CN903-5 — MB 908-4 PWR
SST,CN903-4 — MB 908-3 PRD
SST,CN903-17 — MB 908-16 PAD 0
SST,CN903-18 — MB 908-17 PAD 1
SST,CN903-19 — MB 908-18 PAD 2
SST,CN903-20 — MB 908-19 PAD 3
SST,CN903-21 — MB 908-20 PAD 4
SST,CN903-22 — MB 908-21 PAD 5
SST,CN903-23 — MB 908-22 PAD 6
SST,CN903-24 — MB 908-23 PAD 7
SST,CN902-21 — MB 907-7 PROC I/O A0
SST,CN902-22 — MB 907-8 PROC I/O A1
SST,CN902-23 — MB 907-9 PROC I/O A2
SST,CN902-24 — MB 907-10 PROC I/O A3
SST,CN903-15 — MB 908-14 PCS
SST,CN904-21 — MB 909-16 REC A/E SEL
FOR TOOL 213-1 TCK
213-3 TMS
213-4 ISPEN
213-5 TDI
213-6 TDO
PAD ST0 TG 1/4
PAD ST1 TG 1/4
PAD ST0 RX 2/4
PAD ST1 RX 2/4
PAD ST0 TX 2/4
PAD ST1 TX 2/4
PAD ST0 I FIL 2/4
PAD ST1 I FIL 2/4
PAD ST0 O FIL 2/4
PAD ST1 O FIL 2/4
PAD ST0 VP 2/4
PAD ST1 VP 2/4
PAD ST0 TG2 1/4
PAD ST1 TG2 1/4
PAD STB TG 1/4
PAD STB RX 2/4
PAD STB TX 2/4
PAD STB I FIL 2/4
PAD STB O FIL 2/4
PAD STB VP 2/4
PAD STB TG2 1/4
PAD W/R 2 2/4
DPR PAD ST0 203-12 DPR,CN203-12
DPR PAD ST1 203-11 DPR,CN203-11
DPR PAD STB 203-10 DPR,CN203-10
DPR PAD W/R 203-9 DPR,CN203-9
DCP PAD ST0 211-44 DPR,CN211-44
DCP PAD ST1 211-46 DPR,CN211-46
DCP PAD STB 211-40 DPR,CN211-40
DCP PAD W/R 211-38 DPR,CN211-38
DPR PAD0 203-20 DPR,CN203-20
DPR PAD1 203-19 DPR,CN203-19
DPR PAD2 203-18 DPR,CN203-18
DPR PAD3 203-17 DPR,CN203-17
DPR PAD4 203-16 DPR,CN203-16
DPR PAD5 203-15 DPR,CN203-15
DPR PAD6 203-14 DPR,CN203-14
DPR PAD7 203-13 DPR,CN203-13
DCP PAD0 211-48 DCP,CN211-48
DCP PAD1 211-50 DCP,CN211-50
DCP PAD2 211-52 DCP,CN211-52
DCP PAD3 211-54 DCP,CN211-54
DCP PAD4 211-56 DCP,CN211-56
DCP PAD5 211-58 DCP,CN211-58
DCP PAD6 211-60 DCP,CN211-60
DCP PAD7 211-62 DCP,CN211-62
SYIO 2 2/4
SYIO 3 3/4
PROC DATA TG2 1/4
AD CH1/2 PON 208-1 ADA,CN559-1
AD CH3/4 PON 208-2 ADA,CN559-2
DE EMP CH1 207-8 ADA,CN556-8
DE EMP CH2 207-9 ADA,CN556-9
DE EMP CH3 207-10 ADA,CN556-10
DE EMP CH4 207-11 ADA,CN556-11
VR AD/DA 206-8 ADA,CN555-8
CUE INSERT 206-9 ADA,CN555-9
CUE MIX INHI 206-7 ADA,CN555-7
EMP 206-3 ADA,CN555-3
AU CH1/2 SEL 4/4
AU CH3/4 SEL 4/4
AU MUTING 4/4
ADA CH1/2/3/4 PON 4/4
RST AU2 4/4
RST AUDIO 4/4
RST TG2 1/4
RST HDEC/CNC DPR 202-23 DPR,CN202-23
RST DEC DPR 202-24 DPR,CN202-24
FIELD 59/60 DPR 205-5 DPR,CN205-5
DCP RESET 211-47 DCP,CN211-47
DCP FILED 59/60 211-53 DCP,CN211-53
DCP VIDEO PHASE 211-45 DCP,CN211-45
DA EN 5V 1/4
ENB TX 5V 1/4
1/4 RESET PI/O+5V
ENB ENC DPR 202-29 DPR,CN202-29
ENB HENC DPR 202-30 DPR,CN202-30
ENB HENC/CNC DPR 202-27 DPR,CN202-27
ENB DEC DPR 202-28 DPR,CN202-28
REC INHIBIT 205-8 DPR,CN205-8
BYP HENC DPR 205-7 DPR,CN205-7
RST ENC DPR 202-25 DPR,CN202-25
RST HENC DPR 202-26 DPR,CN202-26
RST VP 2/4
RST O FIL 2/4
RST I FIL 2/4
RST TX 2/4
RST RX 2/4
RST CG 2/4
BYPASS FIL 2/4
2/4 EVR DATA
2/4 EVR CK
2/4 EVR LOAD
2/4 EVR DO
2/4 EVR CS
2/4 EXT SYNC EN
2/4 SEL RETURN VIDEO
4/4 CONFI
ENV VP 1/4
ENV O FIL 1/4
ENV I FIL 1/4
ENV AUDIO 4/4
SEL 1125 SYNC 1/4
SEL INPUT VIDEO 2/4
INCHK 90H ADV 2/4
TEMP SENSOR 908-25 — MB — SST,CN903-25
RESET TG 1/4
RESET PI/O 1/4
RESET EVR 2/4
RESET AP5 4/4
CS PI/O
SYSTEM EE
CS TG2 1/4
CS TG 1/4
REF CF1 1/4
REF CF0 1/4
CS I FIL 2/4
CS O FIL 2/4
CS VP 2/4
CS RX 2/4
CS TX 2/4
1/4 H2 PLD
1/4 CF PLD
1/4,2/4 H PLD
1/4,2/4 FRAME PLD
1/4,2/4 REF H O FIL
1/4,2/4 REF F O FIL
BCK1 4/4
BCK2 4/4
WCK 4/4
1/4 CK18 PLD
1/4 CK46 PLD
2/4 DA PEDESTAL CLP
REC A/E SEL DPR 205-14 DPR,CN205-14
CS HENC A DPR 203-8 DPR,CN203-8
CS HENC B DPR 203-7 DPR,CN203-7
CS ENC DPR 203-6 DPR,CN203-6
CS HDEC A DPR 203-3 DPR,CN203-3
CS HDEC B DPR 203-2 DPR,CN203-2
CS DEC A DPR 203-5 DPR,CN203-5
CS DEC B DPR 203-4 DPR,CN203-4
CN CNC DPR 203-1 DPR,CN203-1
DCP SYCS 211-42 DCP,CN211-42
ADV FRAME 907-11 — MB — SST,CN902-25
ADV CF 907-12 — MB — SST,CN902-26
SV CF 907-13 — MB — SST,CN902-27
IO57 IO62 IO0 IO16 IO9 IO18 IO47 IO19 IO17 RESET IO63 IO37 IO38 IO48 IO12 IO13 IO14 IO10 IO11 IO36 IO39 IO26 IO25 IO41 IO40 IO27 IO29 IO28 Y1 Y0 Y2 IO43 IO48 IO1 IO2 IO3 IO4 IO5 IO6 IO7 IO8 IO15 IO53 IO52 IO46
TCK/IN3 TMS/IN1 ISPEN TDI/IN0 TDO/IN2
BD0 BD7 IRD/RW IWR/MEN IRESET IA0 IA3 ICS PB65 PB80 PB81 PB82 PB84 PB83 PB46 PB60 PB47
BP71 BP72 BP94 BP95 BP96 BP97 BP93 BP92 BP91 BP90 BP75 BP76 BP77 BP70 BP45 BP44 BP43 BP42 BP41 BP40 BP50 BP24 BP11 BP16 BP15 BP21 BP20 BP63 BP61 BP37 BP36 BP35 BP34 BP33 BP32 BP31 BP30 BP62 BP14 BP13 BP12 BP25 BP54 BP51 BP56 BP55

VPR-53 (3/4)

VIDEO SIGNAL PROCESSOR (3)

LOT NO. 812-

B-HDW-250_VPR-53_011_3


VPR-53 (4/4)
ADA,CN206-1
ADA,CN206-2
A/D CH1/2 DATA
A/D CH3/4 DATA
SIF R 1/2
SIF MUTE 1/2
SIF R 3/4
SIF MUTE 3/4
AU CH1/2 SEL
AU CH3/4 SEL
AU MUTING
FS/48
FS512/47 RC IN
FS/48 RC IN
FS64/48 RC IN
FS256/48 RC IN
FS/47 RC IN
FS64/47 RC IN
IC1104
IC1106
IC1100
IC1101
FF
IC1108
RATE CONV.
IC1109
IC1205
AUDIO DATA PROCESS
AD1
AD2
START
SCK
SIN
FS256
FS
PDM
RST
CNF1
CNF2
ENC1
ENC2
DA1
DA2
SOUT
IC1206
2M FIFO
AU ENC 1/2
AU ENC 3/4
DPR,CN205-13
DPR,CN205-12
SST,CN903-15 — MB
SST,CN903-19 — MB
SST,CN903-18 — MB
SST,CN903-13 — MB
DO START
SIF SCK
SIF CND
AP5 CS
IC1200
BUFFER
IC1103
IC1203
IC1202
IC1201
SIF RCV
MB — SST,CN909-17
CG SCK
CG CND
CG CPS
DCP DO START
DCP SIF SCK
DCP SIF CND
DCP SIF EN
DCP,CN211-61
DCP,CN211-59
DCP,CN211-57
DCP,CN211-51
RST AUDIO
IC1100,1102
IC1105
LINE DRIVER
SST,CN903-5 — MB
SST,CN903-6 — MB
SST,CN903-7 — MB
SST,CN903-9 — MB
AU REC SEL0
AU REC SEL1
AU REC SEL2
AU LATCH
LATCH RC IN1
LATCH RC IN2
LATCH RC OUT1
LATCH RC OUT2
LATCH RC OUT3
LATCH RC OUT4
FS256/47 AP5
FS/47 AP5
IC1208
LATCH
IC1204
RESET AP5
LOCK AUD
IC1207
RC OUT MUTE DIG
DPR,CN202-19
DPR,CN202-18
AU DEC 1/2
AU DEC 3/4
DCP,CN211-18
DCP DO START
SST,CN909-12 — MB
SST,CN909-14 — MB
DSP SIF EN
CG CS
RST AU2
CONFI
IC1300
IC1301
IC1303
IC1304
IC1305
IC1308
IC1307
IC1302
WCK
BCK1
CH1
CH2
CH3
CH4
TX AU OUT 1/2
TX AU OUT 3/4
DA SYS CK
DA BCK
DA WCK
DA CH1 DATA
DA CH2 DATA
DA CH3 DATA
DA CH4 DATA
ADA,CN556-1
ADA,CN556-2
ADA,CN556-3
ADA,CN556-4
ADA,CN556-5
ADA,CN556-6
ADA,CN556-7
BCK2
+3V
ADA CH1/2/3/4 PON
DA CH1/2/3/4 PON
ADA,CN559-5
ENB AUDIO
FS512/48 RC OUT
FS256/47 RC OUT
FS/48 RC OUT
FS64/48 RC OUT
FS/47 RC OUT
FS64/47 RC OUT

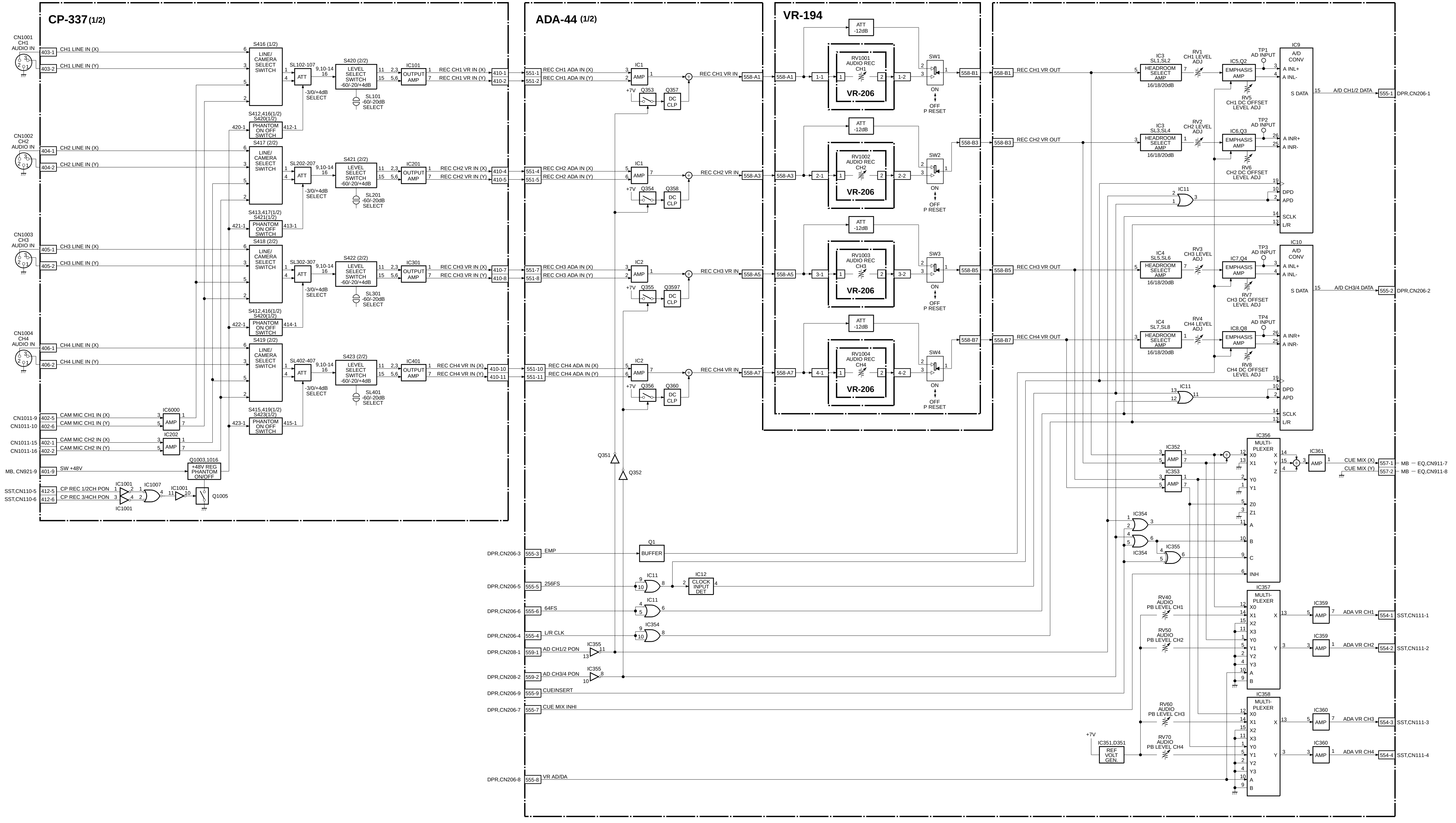
VPR-53 (4/4)

VIDEO SIGNAL PROCESSOR (4)

LOT NO. 812-

B-HDW-250_VPR-53_011_4

AUDIO SIGNAL PROCESSOR (1)

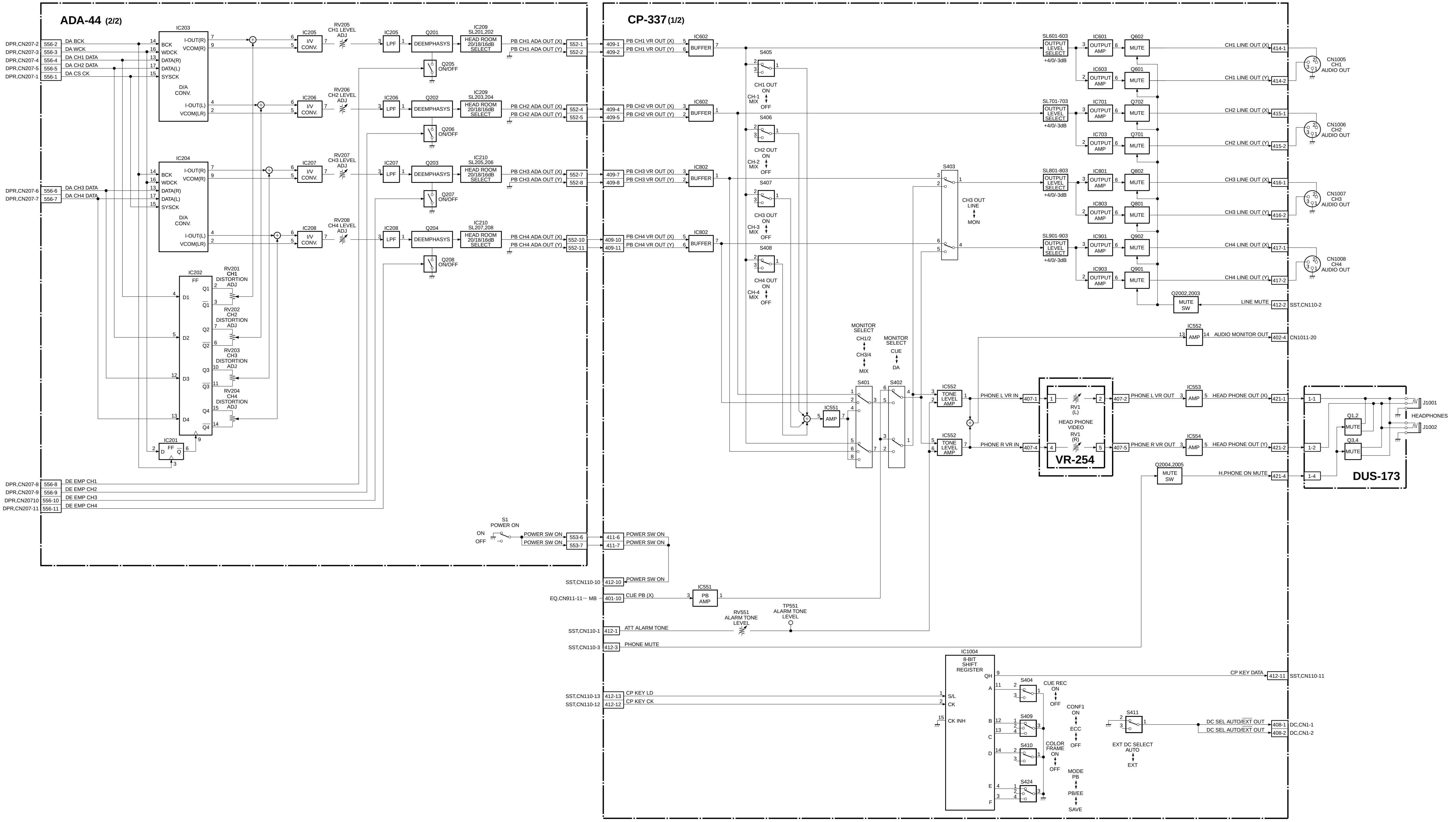

CP-337 (1/2)
ADA-44 (1/2)
VR-194
CN1001 CH1 AUDIO IN
CN1002 CH2 AUDIO IN
CN1003 CH3 AUDIO IN
CN1004 CH4 AUDIO IN
CH1 LINE IN (X)
CH1 LINE IN (Y)
CH2 LINE IN (X)
CH2 LINE IN (Y)
CH3 LINE IN (X)
CH3 LINE IN (Y)
CH4 LINE IN (X)
CH4 LINE IN (Y)
S416 (1/2) LINE/CAMERA SELECT SWITCH
S417 (2/2) LINE/CAMERA SELECT SWITCH
S418 (2/2) LINE/CAMERA SELECT SWITCH
S419 (2/2) LINE/CAMERA SELECT SWITCH
PHANTOM ON OFF SWITCH
SL102-107 ATT
SL202-207 ATT
SL302-307 ATT
SL402-407 ATT
-3/0/+4dB SELECT
S420 (2/2) LEVEL SELECT SWITCH -60/-20/+4dB
S421 (2/2) LEVEL SELECT SWITCH -60/-20/+4dB
S422 (2/2) LEVEL SELECT SWITCH -60/-20/+4dB
S423 (2/2) LEVEL SELECT SWITCH -60/-20/+4dB
SL101 -60/-20dB SELECT
SL201 -60/-20dB SELECT
SL301 -60/-20dB SELECT
SL401 -60/-20dB SELECT
IC101 OUTPUT AMP
IC201 OUTPUT AMP
IC301 OUTPUT AMP
IC401 OUTPUT AMP
REC CH1 VR IN (X)
REC CH1 VR IN (Y)
REC CH2 VR IN (X)
REC CH2 VR IN (Y)
REC CH3 VR IN (X)
REC CH3 VR IN (Y)
REC CH4 VR IN (X)
REC CH4 VR IN (Y)
CN1011-9 CAM MIC CH1 IN (X)
CN1011-10 CAM MIC CH1 IN (Y)
CN1011-15 CAM MIC CH2 IN (X)
CN1011-16 CAM MIC CH2 IN (Y)
IC6000 AMP
IC202 AMP
MB, CN921-9 SW +48V
Q1003,1016 +48V REG PHANTOM ON/OFF
SST,CN110-5 CP REC 1/2CH PON
SST,CN110-6 CP REC 3/4CH PON
IC1001
IC1007
Q1005
REC CH1 ADA IN (X)
REC CH1 ADA IN (Y)
REC CH2 ADA IN (X)
REC CH2 ADA IN (Y)
REC CH3 ADA IN (X)
REC CH3 ADA IN (Y)
REC CH4 ADA IN (X)
REC CH4 ADA IN (Y)
IC1 AMP
IC2 AMP
Q353 Q354 Q355 Q356
Q357 DC CLP
Q358 DC CLP
Q3597 DC CLP
Q360 DC CLP
+7V
REC CH1 VR IN
REC CH2 VR IN
REC CH3 VR IN
REC CH4 VR IN
Q351
Q352
ATT -12dB
RV1001 AUDIO REC CH1
RV1002 AUDIO REC CH2
RV1003 AUDIO REC CH3
RV1004 AUDIO REC CH4
VR-206
SW1 SW2 SW3 SW4
ON OFF P RESET
REC CH1 VR OUT
REC CH2 VR OUT
REC CH3 VR OUT
REC CH4 VR OUT
IC3 SL1,SL2 HEADROOM SELECT AMP 16/18/20dB
IC3 SL3,SL4 HEADROOM SELECT AMP 16/18/20dB
IC4 SL5,SL6 HEADROOM SELECT AMP 16/18/20dB
IC4 SL7,SL8 HEADROOM SELECT AMP 16/18/20dB
RV1 CH1 LEVEL ADJ
RV2 CH2 LEVEL ADJ
RV3 CH3 LEVEL ADJ
RV4 CH4 LEVEL ADJ
IC5,Q2 EMPHASIS AMP
IC6,Q3 EMPHASIS AMP
IC7,Q4 EMPHASIS AMP
IC8,Q8 EMPHASIS AMP
RV5 CH1 DC OFFSET LEVEL ADJ
RV6 CH2 DC OFFSET LEVEL ADJ
RV7 CH3 DC OFFSET LEVEL ADJ
RV8 CH4 DC OFFSET LEVEL ADJ
TP1 AD INPUT
TP2 AD INPUT
TP3 AD INPUT
TP4 AD INPUT
IC9 A/D CONV
IC10 A/D CONV
A INL+ A INL- A INR+ A INR- S DATA DPD APD SCLK L/R
A/D CH1/2 DATA
A/D CH3/4 DATA
DPR,CN206-1
DPR,CN206-2
IC11
IC352 AMP
IC353 AMP
IC356 MULTI-PLEXER
IC361 AMP
CUE MIX (X)
CUE MIX (Y)
MB — EQ,CN911-7
MB — EQ,CN911-8
IC354
IC355
IC357 MULTI-PLEXER
IC358 MULTI-PLEXER
RV40 AUDIO PB LEVEL CH1
RV50 AUDIO PB LEVEL CH2
RV60 AUDIO PB LEVEL CH3
RV70 AUDIO PB LEVEL CH4
IC351,D351 REF VOLT GEN
IC359 AMP
IC360 AMP
ADA VR CH1
ADA VR CH2
ADA VR CH3
ADA VR CH4
SST,CN111-1
SST,CN111-2
SST,CN111-3
SST,CN111-4
DPR,CN206-3 EMP
Q1 BUFFER
DPR,CN206-5 256FS
IC12 CLOCK INPUT DET
DPR,CN206-6 64FS
DPR,CN206-4 L/R CLK
DPR,CN208-1 AD CH1/2 PON
DPR,CN208-2 AD CH3/4 PON
DPR,CN206-9 CUEINSERT
DPR,CN206-7 CUE MIX INHI
DPR,CN206-8 VR AD/DA

ADA-44, CP-337, VR-194, VR-206

AUDIO SIGNAL PROCESSOR (1)

LOT NO. 812-

B-HDW-250_CP-337_011_1

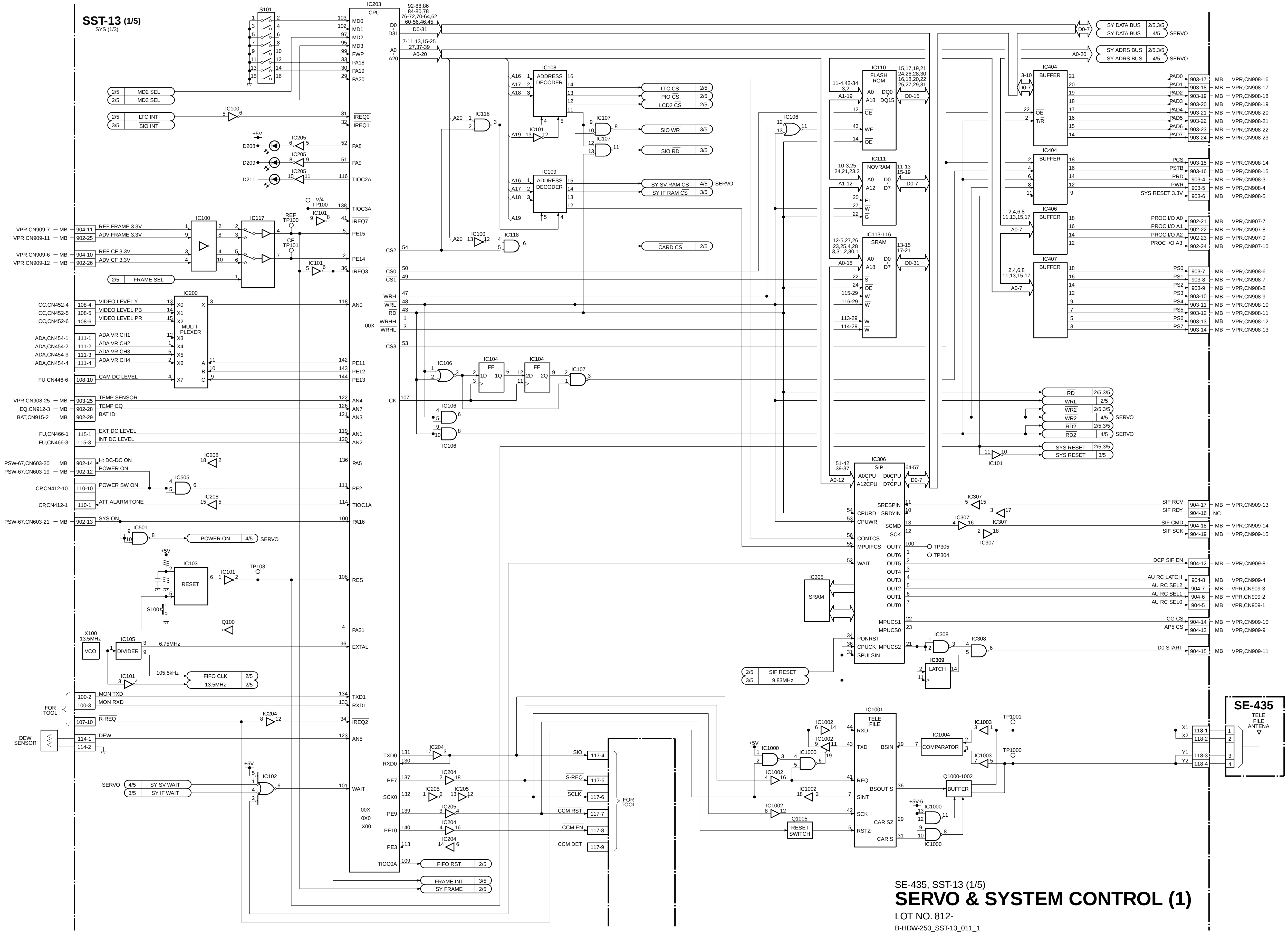

ADA-44 (2/2)
CP-337 (1/2)
VR-254
DUS-173
DPR,CN207-2 556-2 DA BCK
DPR,CN207-3 556-3 DA WCK
DPR,CN207-4 556-4 DA CH1 DATA
DPR,CN207-5 556-5 DA CH2 DATA
DPR,CN207-1 556-1 DA CS CK
DPR,CN207-6 556-6 DA CH3 DATA
DPR,CN207-7 556-7 DA CH4 DATA
IC203
IC204
BCK
WDCK
DATA(R)
DATA(L)
SYSCK
D/A CONV.
I-OUT(R)
VCOM(R)
I-OUT(L)
VCOM(LR)
IC205 I/V CONV.
IC206 I/V CONV.
IC207 I/V CONV.
IC208 I/V CONV.
RV205 CH1 LEVEL ADJ
RV206 CH2 LEVEL ADJ
RV207 CH3 LEVEL ADJ
RV208 CH4 LEVEL ADJ
IC205 LPF
IC206 LPF
IC207 LPF
IC208 LPF
Q201 DEEMPHASYS
Q202 DEEMPHASYS
Q203 DEEMPHASYS
Q204 DEEMPHASYS
IC209 SL201,202 HEAD ROOM 20/18/16dB SELECT
IC209 SL203,204 HEAD ROOM 20/18/16dB SELECT
IC210 SL205,206 HEAD ROOM 20/18/16dB SELECT
IC210 SL207,208 HEAD ROOM 20/18/16dB SELECT
Q205 ON/OFF
Q206 ON/OFF
Q207 ON/OFF
Q208 ON/OFF
PB CH1 ADA OUT (X) 552-1
PB CH1 ADA OUT (Y) 552-2
PB CH2 ADA OUT (X) 552-4
PB CH2 ADA OUT (Y) 552-5
PB CH3 ADA OUT (X) 552-7
PB CH3 ADA OUT (Y) 552-8
PB CH4 ADA OUT (X) 552-10
PB CH4 ADA OUT (Y) 552-11
IC202 FF
D1 D2 D3 D4
Q1 Q2 Q3 Q4
RV201 CH1 DISTORTION ADJ
RV202 CH2 DISTORTION ADJ
RV203 CH3 DISTORTION ADJ
RV204 CH4 DISTORTION ADJ
IC201 FF D Q
DPR,CN207-8 556-8 DE EMP CH1
DPR,CN207-9 556-9 DE EMP CH2
DPR,CN20710 556-10 DE EMP CH3
DPR,CN207-11 556-11 DE EMP CH4
S1 POWER ON
ON
OFF
POWER SW ON 553-6
POWER SW ON 553-7
409-1 PB CH1 VR OUT (X)
409-2 PB CH1 VR OUT (Y)
409-4 PB CH2 VR OUT (X)
409-5 PB CH2 VR OUT (Y)
409-7 PB CH3 VR OUT (X)
409-8 PB CH3 VR OUT (Y)
409-10 PB CH4 VR OUT (X)
409-11 PB CH4 VR OUT (Y)
IC602 BUFFER
IC602 BUFFER
IC802 BUFFER
IC802 BUFFER
S405 CH1 OUT ON CH-1 MIX OFF
S406 CH2 OUT ON CH-2 MIX OFF
S407 CH3 OUT ON CH-3 MIX OFF
S408 CH4 OUT ON CH-4 MIX OFF
S403 CH3 OUT LINE MON
SL601-603 OUTPUT LEVEL SELECT +4/0/-3dB
SL701-703 OUTPUT LEVEL SELECT +4/0/-3dB
SL801-803 OUTPUT LEVEL SELECT +4/0/-3dB
SL901-903 OUTPUT LEVEL SELECT +4/0/-3dB
IC601 OUTPUT AMP
IC603 OUTPUT AMP
IC701 OUTPUT AMP
IC703 OUTPUT AMP
IC801 OUTPUT AMP
IC803 OUTPUT AMP
IC901 OUTPUT AMP
IC903 OUTPUT AMP
Q602 MUTE
Q601 MUTE
Q702 MUTE
Q701 MUTE
Q802 MUTE
Q801 MUTE
Q902 MUTE
Q901 MUTE
CH1 LINE OUT (X) 414-1
CH1 LINE OUT (Y) 414-2
CH2 LINE OUT (X) 415-1
CH2 LINE OUT (Y) 415-2
CH3 LINE OUT (X) 416-1
CH3 LINE OUT (Y) 416-2
CH4 LINE OUT (X) 417-1
CH4 LINE OUT (Y) 417-2
CN1005 CH1 AUDIO OUT
CN1006 CH2 AUDIO OUT
CN1007 CH3 AUDIO OUT
CN1008 CH4 AUDIO OUT
Q2002,2003 MUTE SW
LINE MUTE 412-2 SST,CN110-2
IC552 AMP
AUDIO MONITOR OUT 402-4 CN1011-20
MONITOR SELECT CH1/2 CH3/4 MIX
MONITOR SELECT CUE DA
S401
S402
IC551 AMP
IC552 TONE LEVEL AMP
IC552 TONE LEVEL AMP
PHONE L VR IN 407-1
PHONE R VR IN 407-4
RV1 (L)
HEAD PHONE VIDEO
RV1 (R)
407-2 PHONE L VR OUT
407-5 PHONE R VR OUT
IC553 AMP
IC554 AMP
HEAD PHONE OUT (X) 421-1
HEAD PHONE OUT (Y) 421-2
Q2004,2005 MUTE SW
H.PHONE ON MUTE 421-4
1-1
1-2
1-4
Q1,2 MUTE
Q3,4 MUTE
J1001
HEADPHONES
J1002
411-6 POWER SW ON
411-7 POWER SW ON
SST,CN110-10 412-10 POWER SW ON
EQ,CN911-11 MB 401-10 CUE PB (X)
IC551 PB AMP
RV551 ALARM TONE LEVEL
TP551 ALARM TONE LEVEL
SST,CN110-1 412-1 ATT ALARM TONE
SST,CN110-3 412-3 PHONE MUTE
IC1004 8-BIT SHIFT REGISTER
QH A B C D E F
S/L CK CK INH
CP KEY DATA 412-11 SST,CN110-11
SST,CN110-13 412-13 CP KEY LD
SST,CN110-12 412-12 CP KEY CK
S404 CUE REC ON OFF
S409 CONF1 ON ECC OFF
S410 COLOR FRAME ON OFF
S424 MODE PB PB/EE SAVE
S411 EXT DC SELECT AUTO EXT
DC SEL AUTO/EXT OUT 408-1 DC,CN1-1
DC SEL AUTO/EXT OUT 408-2 DC,CN1-2

ADA-44, CP-337, VR-254, DUS-173

AUDIO SIGNAL PROCESSOR (2)

LOT NO. 812-

B-HDW-250_CP-337_011_2

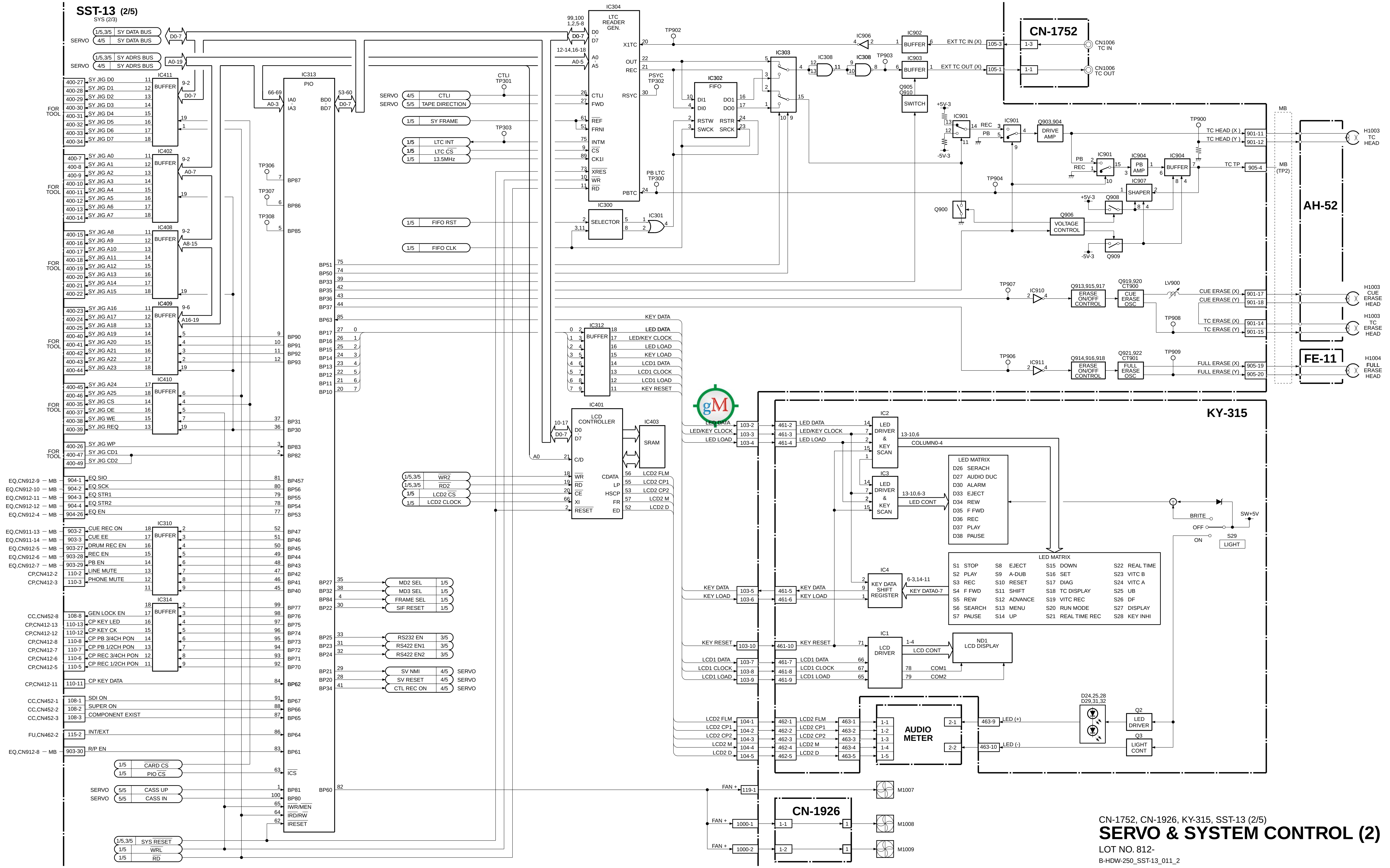

SST-13 (1/5)
SYS (1/3)
S101
IC203
CPU
IC100
IC117
IC200
MULTI-PLEXER
IC103
RESET
IC105
DIVIDER
VCO
X100
13.5MHz
IC101
IC102
IC108
ADDRESS DECODER
IC109
ADDRESS DECODER
IC118
IC107
IC106
IC104
FF
IC110
FLASH ROM
IC111
NOVRAM
IC113-116
SRAM
IC404
BUFFER
IC406
BUFFER
IC407
BUFFER
IC306
SIP
IC305
SRAM
IC307
IC308
IC309
LATCH
IC1001
TELE FILE
IC1000
IC1002
IC1003
IC1004
COMPARATOR
Q1000-1002
BUFFER
Q1005
RESET SWITCH
SE-435
TELE FILE ANTENA
DEW SENSOR
FOR TOOL
SY DATA BUS
SY ADRS BUS
SERVO
MD2 SEL
MD3 SEL
LTC INT
SIO INT
FRAME SEL
POWER ON
FIFO CLK
13.5MHz
SY SV WAIT
SY IF WAIT
FIFO RST
FRAME INT
SY FRAME
LTC CS
PIO CS
LCD2 CS
SIO WR
SIO RD
SY SV RAM CS
SY IF RAM CS
CARD CS
RD
WRL
WR2
RD2
SYS RESET
SIF RESET
9.83MHz
REF FRAME 3.3V
ADV FRAME 3.3V
REF CF 3.3V
ADV CF 3.3V
VIDEO LEVEL Y
VIDEO LEVEL PB
VIDEO LEVEL PR
ADA VR CH1
ADA VR CH2
ADA VR CH3
ADA VR CH4
CAM DC LEVEL
TEMP SENSOR
TEMP EQ
BAT ID
EXT DC LEVEL
INT DC LEVEL
H: DC-DC ON
POWER ON
POWER SW ON
ATT ALARM TONE
SYS ON
MON TXD
MON RXD
R-REQ
DEW
SIO
S-REQ
SCLK
CCM RST
CCM EN
CCM DET
PCS
PSTB
PRD
PWR
SYS RESET 3.3V
PROC I/O A0
PROC I/O A1
PROC I/O A2
PROC I/O A3
PS0
PS1
PS2
PS3
PS4
PS5
PS6
PS7
PAD0
PAD1
PAD2
PAD3
PAD4
PAD5
PAD6
PAD7
SIF RCV
SIF RDY
SIF CMD
SIF SCK
DCP SIF EN
AU RC LATCH
AU RC SEL2
AU RC SEL1
AU RC SEL0
CG CS
AP5 CS
D0 START
TP100
TP101
TP103
TP304
TP305
TP1000
TP1001
D208
D209
D211
S100
Q100

SE-435, SST-13 (1/5)

SERVO & SYSTEM CONTROL (1)

LOT NO. 812-

B-HDW-250_SST-13_011_1

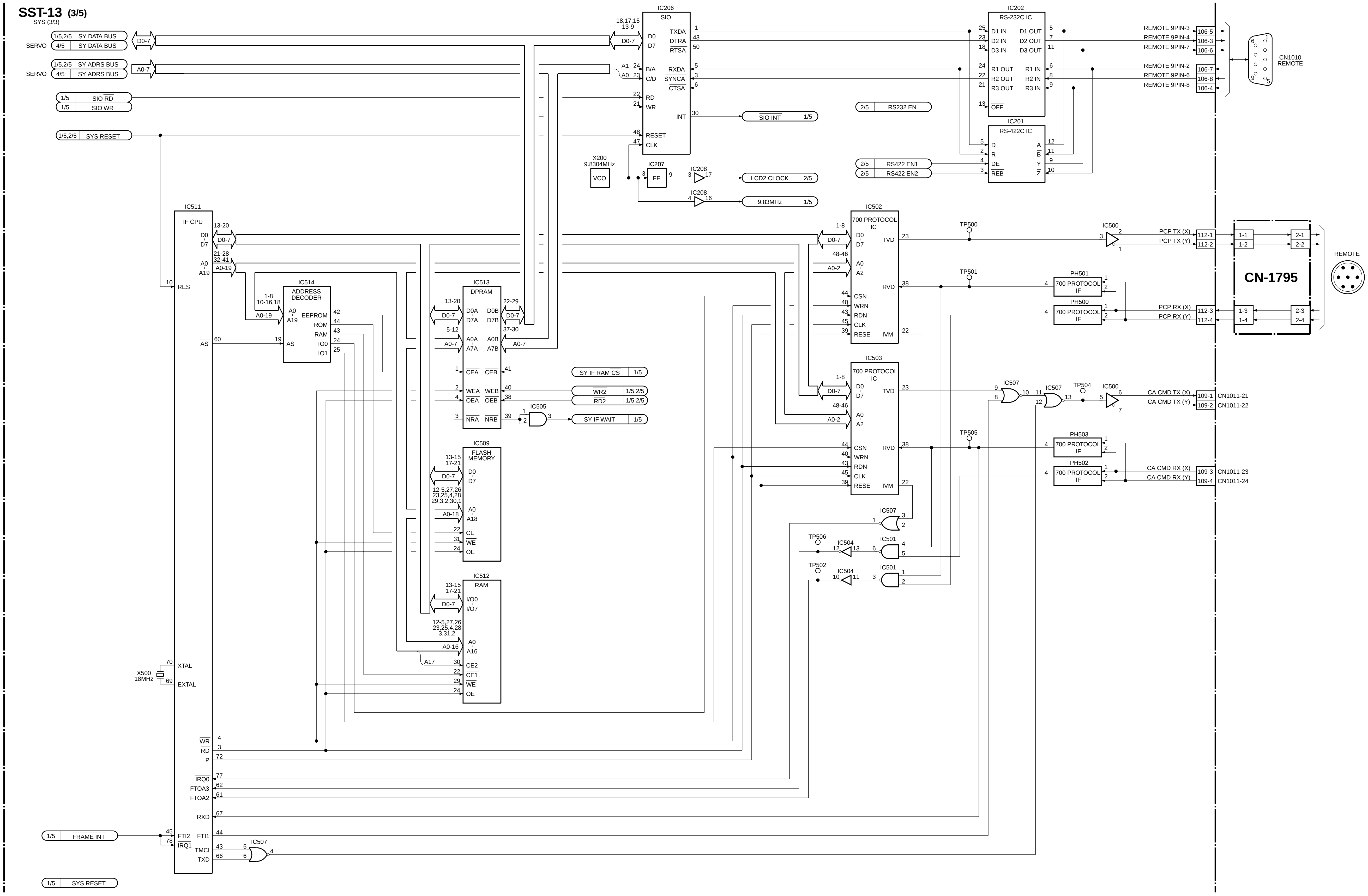

SST-13 (2/5)
SYS (2/3)
SY DATA BUS
SY ADRS BUS
SERVO
D0-7
A0-19
IC411 BUFFER
IC402 BUFFER
IC408 BUFFER
IC409 BUFFER
IC410 BUFFER
IC310 BUFFER
IC314 BUFFER
IC313 PIO
FOR TOOL
SY JIG D0
SY JIG A0
SY JIG WP
SY JIG CD1
SY JIG CD2
EQ SIO
EQ SCK
EQ STR1
EQ STR2
EQ EN
CUE REC ON
CUE EE
DRUM REC EN
REC EN
PB EN
LINE MUTE
PHONE MUTE
GEN LOCK EN
CP KEY LED
CP KEY CK
CP PB 3/4CH PON
CP PB 1/2CH PON
CP REC 3/4CH PON
CP REC 1/2CH PON
CP KEY DATA
SDI ON
SUPER ON
COMPONENT EXIST
INT/EXT
R/P EN
CARD CS
PIO CS
CASS UP
CASS IN
SYS RESET
WRL
RD
TP306
TP307
TP308
CTLI
TAPE DIRECTION
SY FRAME
LTC INT
LTC CS
13.5MHz
FIFO RST
FIFO CLK
WR2
RD2
LCD2 CS
LCD2 CLOCK
MD2 SEL
MD3 SEL
FRAME SEL
SIF RESET
RS232 EN
RS422 EN1
RS422 EN2
SV NMI
SV RESET
CTL REC ON
IC304 LTC READER GEN.
IC300 SELECTOR
IC301
IC302 FIFO
IC303
IC308
IC312 BUFFER
IC401 LCD CONTROLLER
IC403 SRAM
CTLI TP301
TP303
TP902
PSYC TP302
PB LTC TP300
TP903
KEY DATA
LED DATA
LED/KEY CLOCK
LED LOAD
KEY LOAD
LCD1 DATA
LCD1 CLOCK
LCD1 LOAD
KEY RESET
LCD2 FLM
LCD2 CP1
LCD2 CP2
LCD2 M
LCD2 D
FAN +
CN-1752
IC906
IC902 BUFFER
IC903 BUFFER
Q905 Q910 SWITCH
EXT TC IN (X)
EXT TC OUT (X)
CN1006 TC IN
CN1006 TC OUT
IC901
Q903,904 DRIVE AMP
IC904 PB AMP
IC904 BUFFER
IC907 SHAPER
Q908
Q909
Q906 VOLTAGE CONTROL
Q900
TP900
TP904
TC HEAD (X)
TC HEAD (Y)
TC TP
MB
MB (TP2)
AH-52
H1003 TC HEAD
TP907
IC910
Q913,915,917 ERASE ON/OFF CONTROL
Q919,920 CT900 CUE ERASE OSC
LV900
CUE ERASE (X)
CUE ERASE (Y)
H1003 CUE ERASE HEAD
TP908
TC ERASE (X)
TC ERASE (Y)
H1003 TC ERASE HEAD
TP906
IC911
Q914,916,918 ERASE ON/OFF CONTROL
Q921,922 CT901 FULL ERASE OSC
TP909
FULL ERASE (X)
FULL ERASE (Y)
FE-11
H1004 FULL ERASE HEAD
KY-315
IC2 LED DRIVER & KEY SCAN
IC3 LED DRIVER & KEY SCAN
COLUMN0-4
LED CONT
LED MATRIX
D26 SERACH
D27 AUDIO DUC
D30 ALARM
D33 EJECT
D34 REW
D35 F FWD
D36 REC
D37 PLAY
D38 PAUSE
BRITE
OFF
ON
S29 LIGHT
SW+5V
S1 STOP
S2 PLAY
S3 REC
S4 F FWD
S5 REW
S6 SEARCH
S7 PAUSE
S8 EJECT
S9 A-DUB
S10 RESET
S11 SHIFT
S12 ADVANCE
S13 MENU
S14 UP
S15 DOWN
S16 SET
S17 DIAG
S18 TC DISPLAY
S19 VITC REC
S20 RUN MODE
S21 REAL TIME REC
S22 REAL TIME
S23 VITC B
S24 VITC A
S25 UB
S26 DF
S27 DISPLAY
S28 KEY INHI
IC4 KEY DATA SHIFT REGISTER
KEY DATA0-7
IC1 LCD DRIVER
ND1 LCD DISPLAY
COM1
COM2
AUDIO METER
D24,25,28 D29,31,32
Q2 LED DRIVER
Q3 LIGHT CONT
LED (+)
LED (-)
CN-1926
M1007
M1008
M1009

CN-1752, CN-1926, KY-315, SST-13 (2/5)

SERVO & SYSTEM CONTROL (2)

LOT NO. 812-

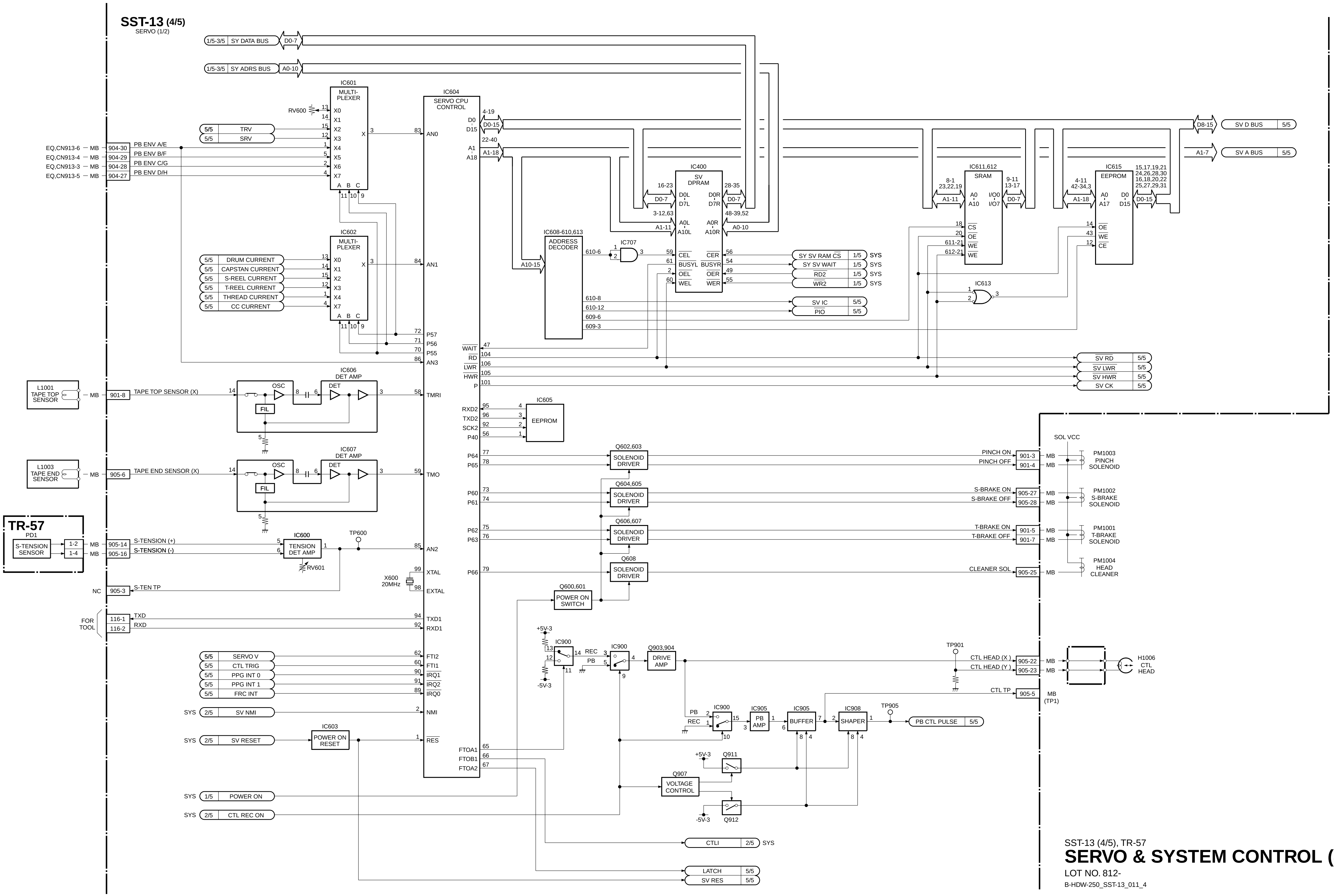
B-HDW-250_SST-13_011_2


SST-13 (3/5)
SYS (3/3)
SERVO
1/5,2/5 SY DATA BUS
4/5 SY DATA BUS
1/5,2/5 SY ADRS BUS
4/5 SY ADRS BUS
1/5 SIO RD
1/5 SIO WR
1/5,2/5 SYS RESET
D0-7
A0-7
IC206
SIO
D0
D7
B/A
C/D
RD
WR
RESET
CLK
TXDA
DTRA
RTSA
RXDA
SYNCA
CTSA
INT
SIO INT 1/5
X200
9.8304MHz
VCO
IC207
FF
IC208
LCD2 CLOCK 2/5
9.83MHz 1/5
IC202
RS-232C IC
D1 IN
D2 IN
D3 IN
R1 OUT
R2 OUT
R3 OUT
OFF
D1 OUT
D2 OUT
D3 OUT
R1 IN
R2 IN
R3 IN
2/5 RS232 EN
IC201
RS-422C IC
D
R
DE
REB
A
B
Y
Z
2/5 RS422 EN1
2/5 RS422 EN2
REMOTE 9PIN-3
REMOTE 9PIN-4
REMOTE 9PIN-7
REMOTE 9PIN-2
REMOTE 9PIN-6
REMOTE 9PIN-8
106-5
106-3
106-6
106-7
106-8
106-4
CN1010
REMOTE
IC511
IF CPU
D0
D7
A0
A19
RES
AS
XTAL
EXTAL
X500
18MHz
WR
RD
P
IRQ0
FTOA3
FTOA2
RXD
FTI2
FTI1
IRQ1
TMCI
TXD
1/5 FRAME INT
1/5 SYS RESET
IC514
ADDRESS DECODER
EEPROM
ROM
RAM
IO0
IO1
A0-19
IC513
DPRAM
D0A
D7A
A0A
A7A
D0B
D7B
A0B
A7B
CEA
WEA
OEA
NRA
CEB
WEB
OEB
NRB
SY IF RAM CS 1/5
WR2 1/5,2/5
RD2 1/5,2/5
IC505
SY IF WAIT 1/5
IC509
FLASH MEMORY
A0-18
CE
WE
OE
IC512
RAM
I/O0
I/O7
A0-16
A17
CE2
CE1
IC502
700 PROTOCOL IC
CSN
WRN
RDN
CLK
RESE
TVD
RVD
IVM
A0-2
IC503
700 PROTOCOL IC
TP500
TP501
TP504
TP505
TP506
TP502
IC500
PH501
PH500
PH503
PH502
700 PROTOCOL IF
IC507
IC501
IC504
PCP TX (X)
PCP TX (Y)
PCP RX (X)
PCP RX (Y)
112-1
112-2
112-3
112-4
1-1
1-2
1-3
1-4
2-1
2-2
2-3
2-4
CN-1795
REMOTE
CA CMD TX (X)
CA CMD TX (Y)
CA CMD RX (X)
CA CMD RX (Y)
109-1
109-2
109-3
109-4
CN1011-21
CN1011-22
CN1011-23
CN1011-24

CN-1795, SST-13 (3/5)

SERVO & SYSTEM CONTROL (3)

LOT NO. 812-

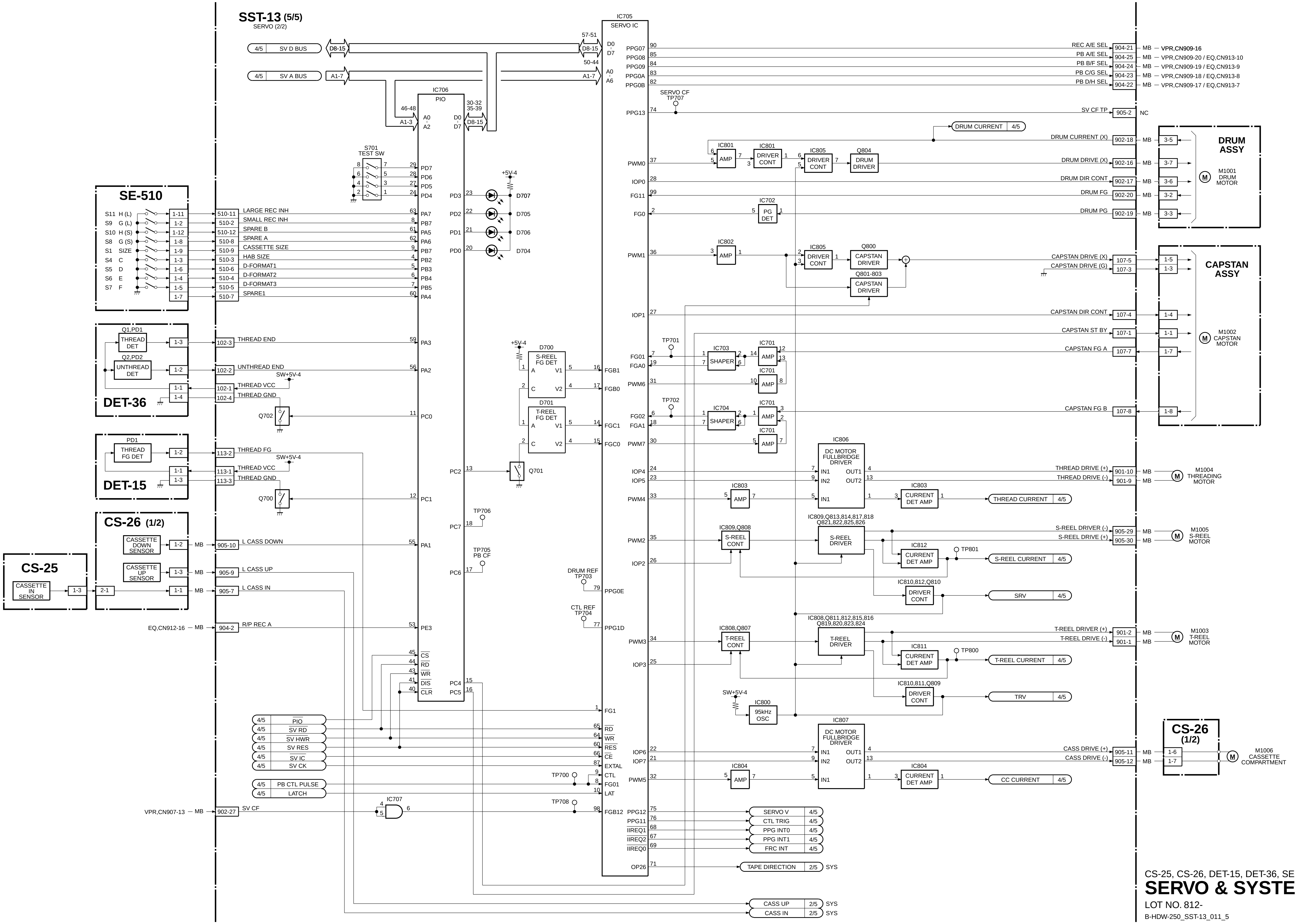

SST-13 (4/5)
SERVO (1/2)
1/5-3/5 SY DATA BUS
D0-7
1/5-3/5 SY ADRS BUS
A0-10
IC601 MULTI-PLEXER
RV600
5/5 TRV
5/5 SRV
EQ,CN913-6 MB 904-30 PB ENV A/E
EQ,CN913-4 MB 904-29 PB ENV B/F
EQ,CN913-3 MB 904-28 PB ENV C/G
EQ,CN913-5 MB 904-27 PB ENV D/H
IC602 MULTI-PLEXER
5/5 DRUM CURRENT
5/5 CAPSTAN CURRENT
5/5 S-REEL CURRENT
5/5 T-REEL CURRENT
5/5 THREAD CURRENT
5/5 CC CURRENT
IC604 SERVO CPU CONTROL
AN0
AN1
P57
P56
P55
AN3
TMRI
TMO
AN2
XTAL
EXTAL
TXD1
RXD1
FTI2
FTI1
IRQ1
IRQ2
IRQ0
NMI
RES
FTOA1
FTOB1
FTOA2
D0 D15
A1 A18
D0-15
A1-18
WAIT
RD
LWR
HWR
P
RXD2
TXD2
SCK2
P40
P64
P65
P60
P61
P62
P63
P66
IC605 EEPROM
IC608-610,613 ADDRESS DECODER
A10-15
IC707
IC400 SV DPRAM
D0L D7L
D0R D7R
A0L A10L
A0R A10R
CEL BUSYL OEL WEL
CER BUSYR OER WER
16-23
28-35
3-12,63
48-39,52
A1-11
A0-10
SY SV RAM CS 1/5 SYS
SY SV WAIT 1/5 SYS
RD2 1/5 SYS
WR2 1/5 SYS
SV IC 5/5
PIO 5/5
IC611,612 SRAM
A0 A10
I/O0 I/O7
CS OE WE WE
8-1 23,22,19
9-11 13-17
A1-11
IC615 EEPROM
A0 A17
D0 D15
OE WE CE
4-11 42-34,3
15,17,19,21 24,26,28,30 16,18,20,22 25,27,29,31
A1-18
D0-15
IC613
D8-15 SV D BUS 5/5
A1-7 SV A BUS 5/5
SV RD 5/5
SV LWR 5/5
SV HWR 5/5
SV CK 5/5
L1001 TAPE TOP SENSOR
MB 901-8 TAPE TOP SENSOR (X)
IC606 DET AMP
OSC
DET
FIL
L1003 TAPE END SENSOR
MB 905-6 TAPE END SENSOR (X)
IC607 DET AMP
TR-57
PD1 S-TENSION SENSOR
1-2 MB 905-14 S-TENSION (+)
1-4 MB 905-16 S-TENSION (-)
IC600 TENSION DET AMP
RV601
TP600
NC 905-3 S-TEN TP
X600 20MHz
FOR TOOL
116-1 TXD
116-2 RXD
5/5 SERVO V
5/5 CTL TRIG
5/5 PPG INT 0
5/5 PPG INT 1
5/5 FRC INT
SYS 2/5 SV NMI
SYS 2/5 SV RESET
IC603 POWER ON RESET
SYS 1/5 POWER ON
SYS 2/5 CTL REC ON
Q602,603 SOLENOID DRIVER
Q604,605 SOLENOID DRIVER
Q606,607 SOLENOID DRIVER
Q608 SOLENOID DRIVER
Q600,601 POWER ON SWITCH
SOL VCC
PINCH ON 901-3 MB
PINCH OFF 901-4 MB
PM1003 PINCH SOLENOID
S-BRAKE ON 905-27 MB
S-BRAKE OFF 905-28 MB
PM1002 S-BRAKE SOLENOID
T-BRAKE ON 901-5 MB
T-BRAKE OFF 901-7 MB
PM1001 T-BRAKE SOLENOID
CLEANER SOL 905-25 MB
PM1004 HEAD CLEANER
+5V-3
-5V-3
IC900
REC
PB
Q903,904 DRIVE AMP
TP901
CTL HEAD (X) 905-22 MB
CTL HEAD (Y) 905-23 MB
H1006 CTL HEAD
CTL TP 905-5 MB (TP1)
IC905 PB AMP
IC905 BUFFER
IC908 SHAPER
TP905
PB CTL PULSE 5/5
Q911
Q907 VOLTAGE CONTROL
Q912
CTLI 2/5 SYS
LATCH 5/5
SV RES 5/5

SST-13 (4/5), TR-57

SERVO & SYSTEM CONTROL (4)

LOT NO. 812-

B-HDW-250_SST-13_011_4


SST-13 (5/5)
SERVO (2/2)
SV D BUS
SV A BUS
IC705
SERVO IC
IC706
PIO
S701
TEST SW
SE-510
S11 H (L)
S9 G (L)
S10 H (S)
S8 G (S)
S1 SIZE
S4 C
S5 D
S6 E
S7 F
LARGE REC INH
SMALL REC INH
SPARE B
SPARE A
CASSETTE SIZE
HAB SIZE
D-FORMAT1
D-FORMAT2
D-FORMAT3
SPARE1
D707
D705
D706
D704
DET-36
Q1,PD1
THREAD DET
Q2,PD2
UNTHREAD DET
THREAD END
UNTHREAD END
THREAD VCC
THREAD GND
SW+5V-4
Q702
DET-15
PD1
THREAD FG DET
THREAD FG
Q700
CS-26 (1/2)
CASSETTE DOWN SENSOR
CASSETTE UP SENSOR
CS-25
CASSETTE IN SENSOR
L CASS DOWN
L CASS UP
L CASS IN
EQ,CN912-16
R/P REC A
D700
S-REEL FG DET
D701
T-REEL FG DET
Q701
TP706
TP705
PB CF
DRUM REF
TP703
CTL REF
TP704
PIO
SV RD
SV HWR
SV RES
SV IC
SV CK
PB CTL PULSE
LATCH
VPR,CN907-13
SV CF
IC707
TP700
TP708
SERVO CF
TP707
REC A/E SEL
PB A/E SEL
PB B/F SEL
PB C/G SEL
PB D/H SEL
VPR,CN909-16
VPR,CN909-20 / EQ,CN913-10
VPR,CN909-19 / EQ,CN913-9
VPR,CN909-18 / EQ,CN913-8
VPR,CN909-17 / EQ,CN913-7
SV CF TP
NC
DRUM CURRENT
DRUM CURRENT (X)
IC801
AMP
DRIVER CONT
IC805
Q804
DRUM DRIVER
DRUM DRIVE (X)
DRUM DIR CONT
DRUM FG
IC702
PG DET
DRUM PG
DRUM ASSY
M1001
DRUM MOTOR
IC802
Q800
CAPSTAN DRIVER
Q801-803
CAPSTAN DRIVE (X)
CAPSTAN DRIVE (G)
CAPSTAN DIR CONT
CAPSTAN ST BY
CAPSTAN FG A
CAPSTAN FG B
CAPSTAN ASSY
M1002
CAPSTAN MOTOR
TP701
IC703
SHAPER
IC701
TP702
IC704
IC806
DC MOTOR FULLBRIDGE DRIVER
THREAD DRIVE (+)
THREAD DRIVE (-)
M1004
THREADING MOTOR
IC803
CURRENT DET AMP
THREAD CURRENT
IC809,Q808
S-REEL CONT
IC809,Q813,814,817,818
Q821,822,825,826
S-REEL DRIVER
S-REEL DRIVER (-)
S-REEL DRIVE (+)
M1005
S-REEL MOTOR
IC812
TP801
S-REEL CURRENT
IC810,812,Q810
SRV
IC808,Q807
T-REEL CONT
IC808,Q811,812,815,816
Q819,820,823,824
T-REEL DRIVER
T-REEL DRIVER (+)
T-REEL DRIVE (-)
M1003
T-REEL MOTOR
IC811
TP800
T-REEL CURRENT
IC810,811,Q809
TRV
IC800
95kHz OSC
IC807
CASS DRIVE (+)
CASS DRIVE (-)
CS-26 (1/2)
M1006
CASSETTE COMPARTMENT
IC804
CC CURRENT
SERVO V
CTL TRIG
PPG INT0
PPG INT1
FRC INT
TAPE DIRECTION
SYS
CASS UP
CASS IN

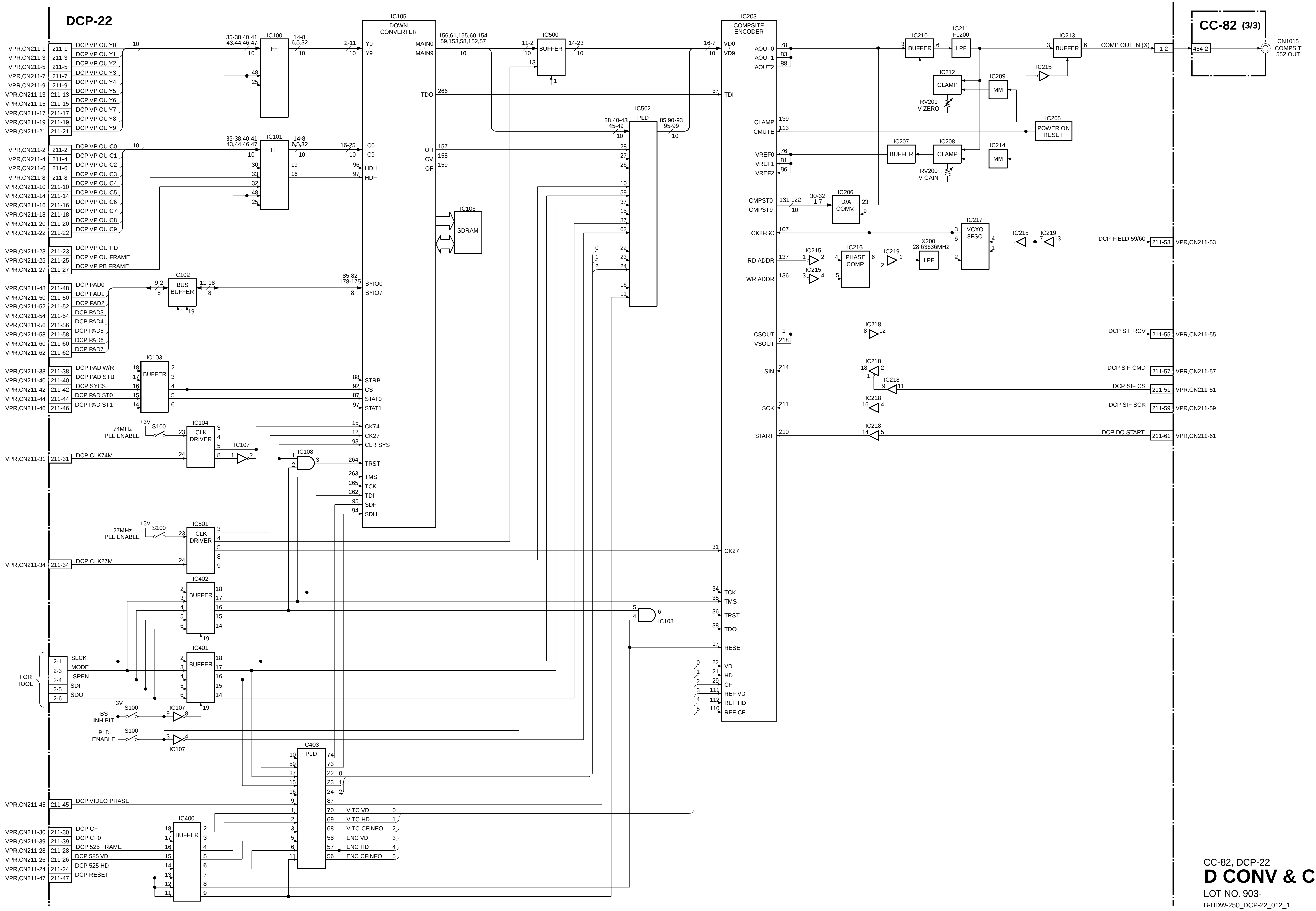
CS-25, CS-26, DET-15, DET-36, SE-510, SST-13 (5/5)

SERVO & SYSTEM CONTROL (5)

LOT NO. 812-

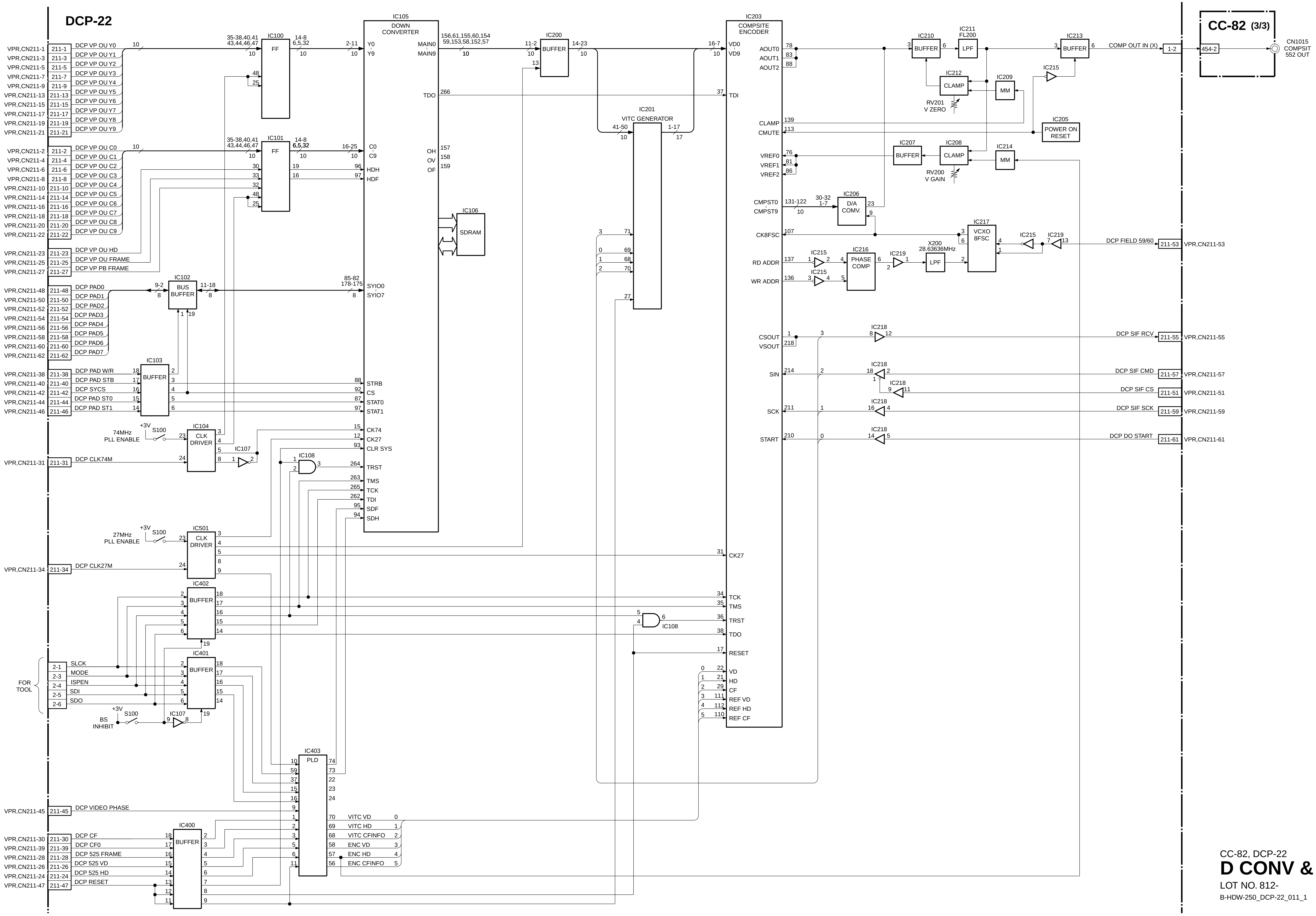
B-HDW-250_SST-13_011_5

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


DCP-22
CC-82 (3/3)
IC100 FF
IC101 FF
IC102 BUS BUFFER
IC103 BUFFER
IC104 CLK DRIVER
IC105 DOWN CONVERTER
IC106 SDRAM
IC107
IC108
IC400 BUFFER
IC401 BUFFER
IC402 BUFFER
IC403 PLD
IC500 BUFFER
IC501 CLK DRIVER
IC502 PLD
IC203 COMPSITE ENCODER
IC205 POWER ON RESET
IC206 D/A COMV.
IC207 BUFFER
IC208 CLAMP
IC209 MM
IC210 BUFFER
IC211 FL200 LPF
IC212 CLAMP
IC213 BUFFER
IC214 MM
IC215
IC216 PHASE COMP
IC217 VCXO 8FSC
IC218
IC219
X200 28.63636MHz
LPF
RV201 V ZERO
RV200 V GAIN
CN1015 COMPSIT 552 OUT
COMP OUT IN (X)
DCP VP OU Y0 – DCP VP OU Y9
DCP VP OU C0 – DCP VP OU C9
DCP VP OU HD
DCP VP OU FRAME
DCP VP PB FRAME
DCP PAD0 – DCP PAD7
DCP PAD W/R
DCP PAD STB
DCP SYCS
DCP PAD ST0
DCP PAD ST1
DCP CLK74M
DCP CLK27M
74MHz PLL ENABLE
27MHz PLL ENABLE
S100
+3V
FOR TOOL
SLCK
MODE
ISPEN
SDI
SDO
BS INHIBIT
PLD ENABLE
DCP VIDEO PHASE
DCP CF
DCP CF0
DCP 525 FRAME
DCP 525 VD
DCP 525 HD
DCP RESET
VITC VD
VITC HD
VITC CFINFO
ENC VD
ENC HD
ENC CFINFO
DCP FIELD 59/60
DCP SIF RCV
DCP SIF CMD
DCP SIF CS
DCP SIF SCK
DCP DO START
Y0 Y9 C0 C9 HDH HDF MAIN0 MAIN9 TDO OH OV OF SYIO0 SYIO7 STRB CS STAT0 STAT1 CK74 CK27 CLR SYS TRST TMS TCK TDI SDF SDH
VD0 VD9 TDI AOUT0 AOUT1 AOUT2 CLAMP CMUTE VREF0 VREF1 VREF2 CMPST0 CMPST9 CK8FSC RD ADDR WR ADDR CSOUT VSOUT SIN SCK START CK27 TCK TMS TRST TDO RESET VD HD CF REF VD REF HD REF CF
VPR,CN211-1 – VPR,CN211-62

CC-82, DCP-22
D CONV & COMP ENCO
LOT NO. 903-
B-HDW-250_DCP-22_012_1

HDW-250 (J) : S/N 30001 through 30050

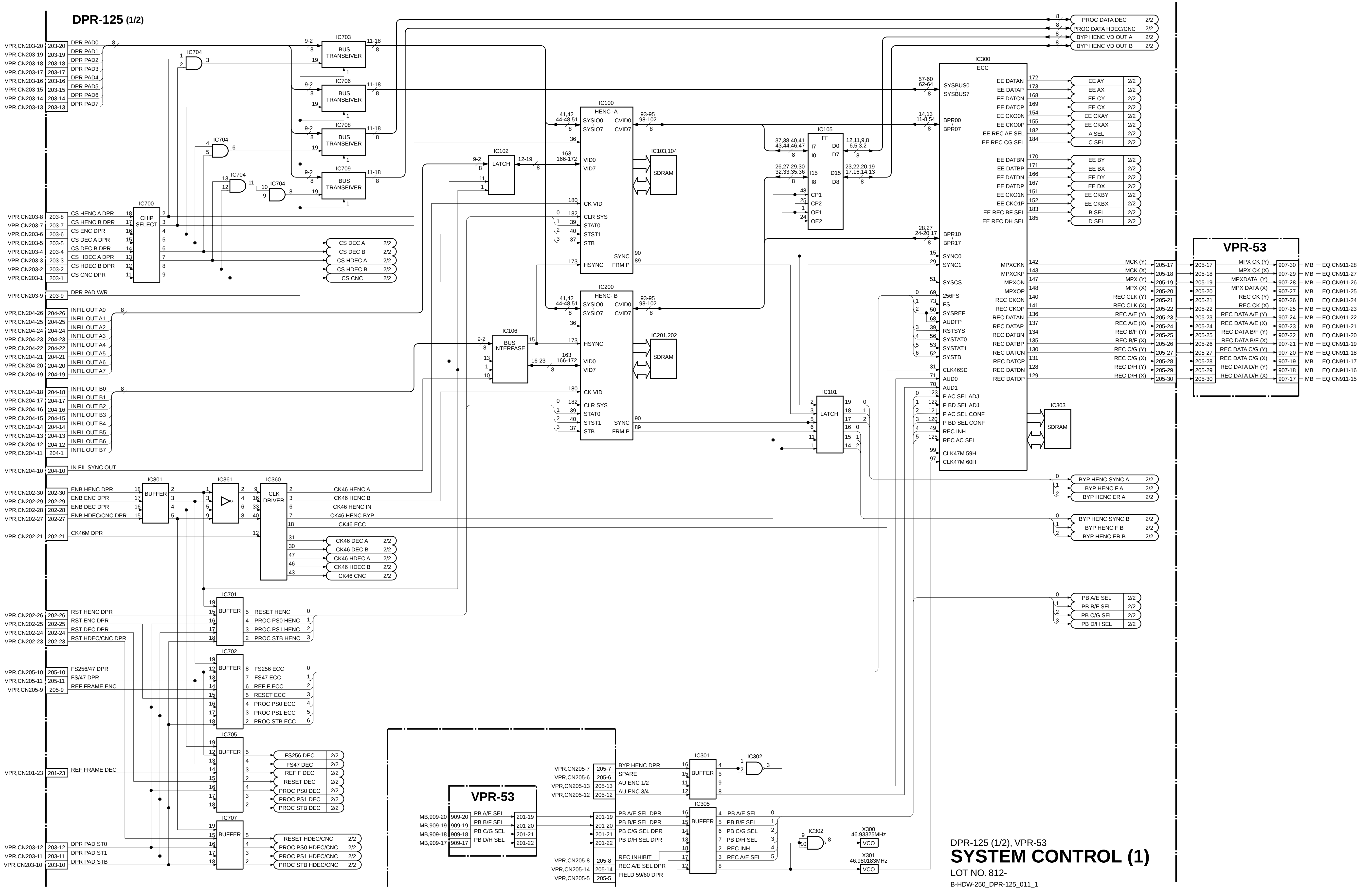

DCP-22
CC-82 (3/3)
IC100 FF
IC101 FF
IC102 BUS BUFFER
IC103 BUFFER
IC104 CLK DRIVER
IC105 DOWN CONVERTER
IC106 SDRAM
IC107
IC108
IC200 BUFFER
IC201 VITC GENERATOR
IC203 COMPSITE ENCODER
IC205 POWER ON RESET
IC206 D/A COMV.
IC207 BUFFER
IC208 CLAMP
IC209 MM
IC210 BUFFER
IC211 FL200 LPF
IC212 CLAMP
IC213 BUFFER
IC214 MM
IC215
IC216 PHASE COMP
IC217 VCXO 8FSC
IC218
IC219
X200 28.63636MHz
LPF
RV200 V GAIN
RV201 V ZERO
IC400 BUFFER
IC401 BUFFER
IC402 BUFFER
IC403 PLD
IC501 CLK DRIVER
S100
74MHz PLL ENABLE
27MHz PLL ENABLE
BS INHIBIT
+3V
DCP VP OU Y0 – DCP VP OU Y9
DCP VP OU C0 – DCP VP OU C9
DCP VP OU HD
DCP VP OU FRAME
DCP VP PB FRAME
DCP PAD0 – DCP PAD7
DCP PAD W/R
DCP PAD STB
DCP SYCS
DCP PAD ST0
DCP PAD ST1
DCP CLK74M
DCP CLK27M
DCP VIDEO PHASE
DCP CF
DCP CF0
DCP 525 FRAME
DCP 525 VD
DCP 525 HD
DCP RESET
SLCK
MODE
ISPEN
SDI
SDO
FOR TOOL
Y0 Y9 MAIN0 MAIN9 TDO OH OV OF C0 C9 HDH HDF SYIO0 SYIO7 STRB CS STAT0 STAT1 CK74 CK27 CLR SYS TRST TMS TCK TDI SDF SDH
VD0 VD9 TDI AOUT0 AOUT1 AOUT2 CLAMP CMUTE VREF0 VREF1 VREF2 CMPST0 CMPST9 CK8FSC RD ADDR WR ADDR CSOUT VSOUT SIN SCK START CK27 TCK TMS TRST TDO RESET VD HD CF REF VD REF HD REF CF
VITC VD
VITC HD
VITC CFINFO
ENC VD
ENC HD
ENC CFINFO
COMP OUT IN (X)
CN1015 COMPSIT 552 OUT
DCP FIELD 59/60
DCP SIF RCV
DCP SIF CMD
DCP SIF CS
DCP SIF SCK
DCP DO START
VPR,CN211-1 … VPR,CN211-62
VPR,CN211-53
VPR,CN211-55
VPR,CN211-57
VPR,CN211-51
VPR,CN211-59
VPR,CN211-61

CC-82, DCP-22

D CONV & COMP ENCO

LOT NO. 812-

B-HDW-250_DCP-22_011_1

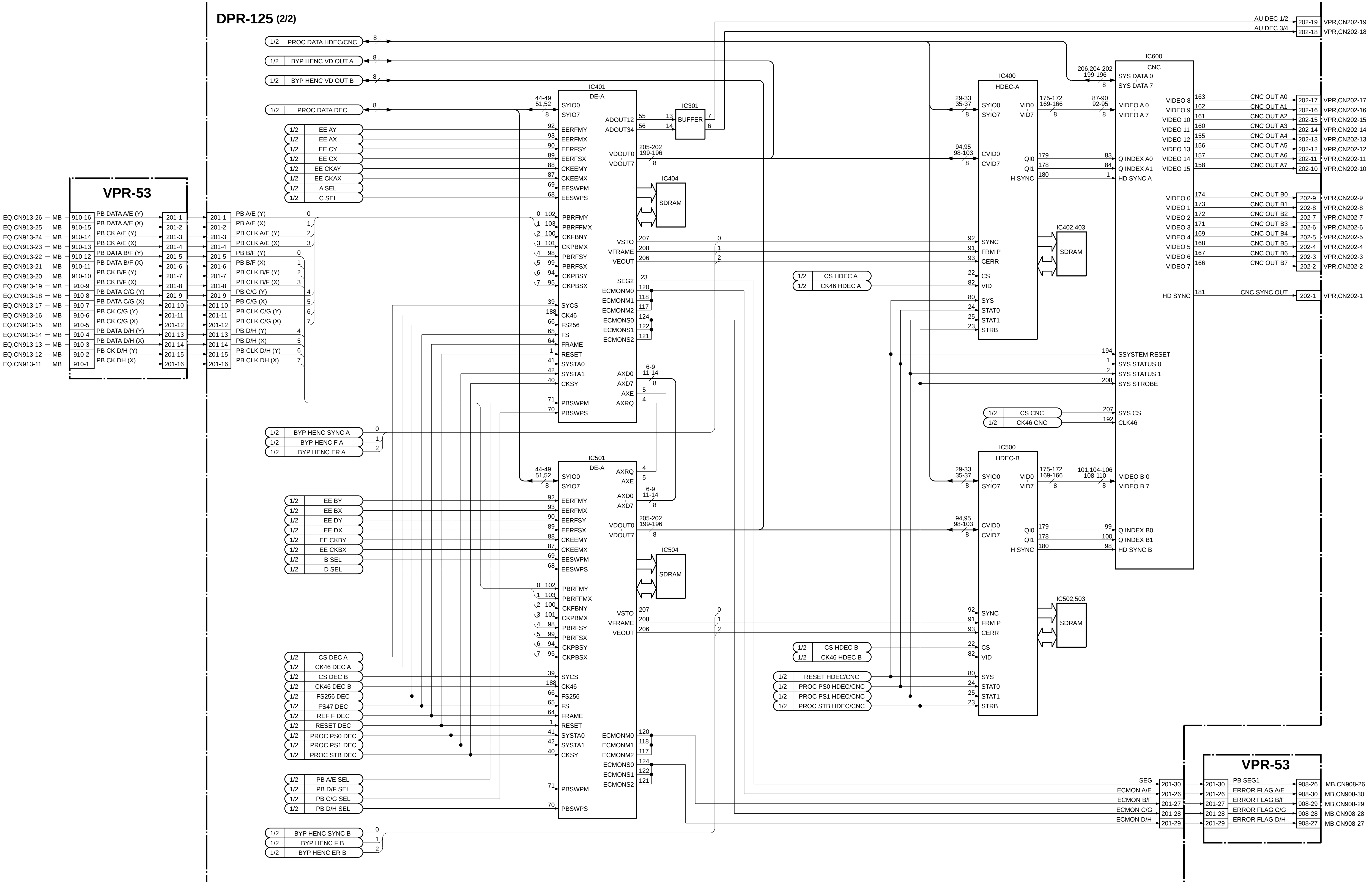

DPR-125 (1/2)
VPR-53
IC703 BUS TRANSEIVER
IC706 BUS TRANSEIVER
IC708 BUS TRANSEIVER
IC709 BUS TRANSEIVER
IC704
IC700 CHIP SELECT
IC100 HENC -A
IC200 HENC- B
IC102 LATCH
IC106 BUS INTERFASE
IC103,104 SDRAM
IC201,202 SDRAM
IC105 FF
IC300 ECC
IC303 SDRAM
IC101 LATCH
IC801 BUFFER
IC361
IC360 CLK DRIVER
IC701 BUFFER
IC702 BUFFER
IC705 BUFFER
IC707 BUFFER
IC301 BUFFER
IC302
IC305 BUFFER
X300 46.93325MHz VCO
X301 46.980183MHz VCO
DPR PAD0
DPR PAD1
DPR PAD2
DPR PAD3
DPR PAD4
DPR PAD5
DPR PAD6
DPR PAD7
CS HENC A DPR
CS HENC B DPR
CS ENC DPR
CS DEC A DPR
CS DEC B DPR
CS HDEC A DPR
CS HDEC B DPR
CS CNC DPR
DPR PAD W/R
INFIL OUT A0
INFIL OUT A1
INFIL OUT A2
INFIL OUT A3
INFIL OUT A4
INFIL OUT A5
INFIL OUT A6
INFIL OUT A7
INFIL OUT B0
INFIL OUT B1
INFIL OUT B2
INFIL OUT B3
INFIL OUT B4
INFIL OUT B5
INFIL OUT B6
INFIL OUT B7
IN FIL SYNC OUT
ENB HENC DPR
ENB ENC DPR
ENB DEC DPR
ENB HDEC/CNC DPR
CK46M DPR
RST HENC DPR
RST ENC DPR
RST DEC DPR
RST HDEC/CNC DPR
FS256/47 DPR
FS/47 DPR
REF FRAME ENC
REF FRAME DEC
DPR PAD ST0
DPR PAD ST1
DPR PAD STB
CS DEC A
CS DEC B
CS HDEC A
CS HDEC B
CS CNC
CK46 HENC A
CK46 HENC B
CK46 HENC IN
CK46 HENC BYP
CK46 ECC
CK46 DEC A
CK46 DEC B
CK46 HDEC A
CK46 HDEC B
CK46 CNC
RESET HENC
PROC PS0 HENC
PROC PS1 HENC
PROC STB HENC
FS256 ECC
FS47 ECC
REF F ECC
RESET ECC
PROC PS0 ECC
PROC PS1 ECC
PROC STB ECC
FS256 DEC
FS47 DEC
REF F DEC
RESET DEC
PROC PS0 DEC
PROC PS1 DEC
PROC STB DEC
RESET HDEC/CNC
PROC PS0 HDEC/CNC
PROC PS1 HDEC/CNC
PROC STB HDEC/CNC
PROC DATA DEC
PROC DATA HDEC/CNC
BYP HENC VD OUT A
BYP HENC VD OUT B
SYSBUS0
SYSBUS7
BPR00
BPR07
BPR10
BPR17
SYNC0
SYNC1
SYSCS
256FS
FS
SYSREF
AUDFP
RSTSYS
SYSTAT0
SYSTAT1
SYSTB
CLK46SD
AUD0
AUD1
P AC SEL ADJ
P BD SEL ADJ
P AC SEL CONF
P BD SEL CONF
REC INH
REC AC SEL
CLK47M 59H
CLK47M 60H
EE DATAN
EE DATAP
EE DATCN
EE DATCP
EE CKO0N
EE CKO0P
EE REC AE SEL
EE REC CG SEL
EE DATBN
EE DATBP
EE DATDN
EE DATDP
EE CKO1N
EE CKO1P
EE REC BF SEL
EE REC DH SEL
EE AY
EE AX
EE CY
EE CX
EE CKAY
EE CKAX
A SEL
C SEL
EE BY
EE BX
EE DY
EE DX
EE CKBY
EE CKBX
B SEL
D SEL
MPXCKN
MPXCKP
MPXON
MPXOP
REC CKON
REC CKOP
REC DATAN
REC DATAP
REC DATBN
REC DATBP
REC DATCN
REC DATCP
REC DATDN
REC DATDP
MCK (Y)
MCK (X)
MPX (Y)
MPX (X)
REC CLK (Y)
REC CLK (X)
REC A/E (Y)
REC A/E (X)
REC B/F (Y)
REC B/F (X)
REC C/G (Y)
REC C/G (X)
REC D/H (Y)
REC D/H (X)
MPX CK (Y)
MPX CK (X)
MPXDATA (Y)
MPX DATA (X)
REC CK (Y)
REC CK (X)
REC DATA A/E (Y)
REC DATA A/E (X)
REC DATA B/F (Y)
REC DATA B/F (X)
REC DATA C/G (Y)
REC DATA C/G (X)
REC DATA D/H (Y)
REC DATA D/H (X)
MB — EQ,CN911-28
BYP HENC SYNC A
BYP HENC F A
BYP HENC ER A
BYP HENC SYNC B
BYP HENC F B
BYP HENC ER B
PB A/E SEL
PB B/F SEL
PB C/G SEL
PB D/H SEL
BYP HENC DPR
SPARE
AU ENC 1/2
AU ENC 3/4
PB A/E SEL DPR
PB B/F SEL DPR
PB C/G SEL DPR
PB D/H SEL DPR
REC INHIBIT
REC A/E SEL DPR
FIELD 59/60 DPR
REC INH
REC A/E SEL
HSYNC
VID0
VID7
CK VID
CLR SYS
STAT0
STST1
STB
SYNC
FRM P
SYSIO0
SYSIO7
CVID0
CVID7
VPR,CN203-20
MB,909-20

DPR-125 (1/2), VPR-53

SYSTEM CONTROL (1)

LOT NO. 812-

B-HDW-250_DPR-125_011_1

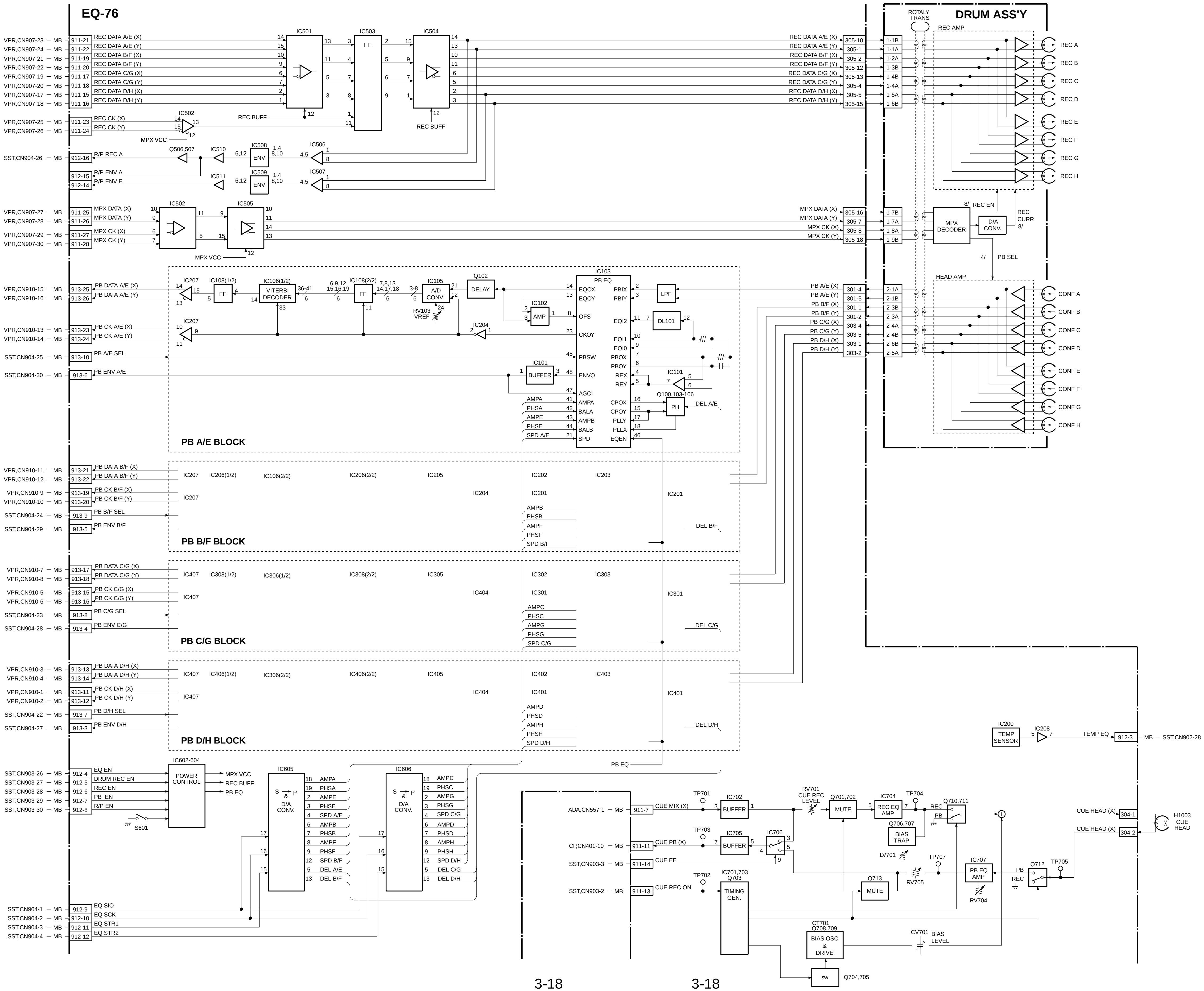

DPR-125 (2/2)
VPR-53
IC401 DE-A
IC501 DE-A
IC301 BUFFER
IC404 SDRAM
IC504 SDRAM
IC400 HDEC-A
IC500 HDEC-B
IC402,403 SDRAM
IC502,503 SDRAM
IC600 CNC
PROC DATA HDEC/CNC
BYP HENC VD OUT A
BYP HENC VD OUT B
PROC DATA DEC
EE AY
EE AX
EE CY
EE CX
EE CKAY
EE CKAX
A SEL
C SEL
EE BY
EE BX
EE DY
EE DX
EE CKBY
EE CKBX
B SEL
D SEL
BYP HENC SYNC A
BYP HENC F A
BYP HENC ER A
BYP HENC SYNC B
BYP HENC F B
BYP HENC ER B
CS DEC A
CK46 DEC A
CS DEC B
CK46 DEC B
FS256 DEC
FS47 DEC
REF F DEC
RESET DEC
PROC PS0 DEC
PROC PS1 DEC
PROC STB DEC
PB A/E SEL
PB D/F SEL
PB C/G SEL
PB D/H SEL
CS HDEC A
CK46 HDEC A
CS HDEC B
CK46 HDEC B
RESET HDEC/CNC
PROC PS0 HDEC/CNC
PROC PS1 HDEC/CNC
PROC STB HDEC/CNC
CS CNC
CK46 CNC
PB DATA A/E (Y)
PB DATA A/E (X)
PB CK A/E (Y)
PB CK A/E (X)
PB DATA B/F (Y)
PB DATA B/F (X)
PB CK B/F (Y)
PB CK B/F (X)
PB DATA C/G (Y)
PB DATA C/G (X)
PB CK C/G (Y)
PB CK C/G (X)
PB DATA D/H (Y)
PB DATA D/H (X)
PB CK D/H (Y)
PB CK DH (X)
EQ,CN913-26 – MB
EQ,CN913-11 – MB
SYIO0
SYIO7
EERFMY
EERFMX
EERFSY
EERFSX
CKEEMY
CKEEMX
EESWPM
EESWPS
PBRFMY
PBRFFMX
CKFBNY
CKPBMX
PBRFSY
PBRFSX
CKPBSY
CKPBSX
SYCS
CK46
FS256
FS
FRAME
RESET
SYSTA0
SYSTA1
CKSY
PBSWPM
PBSWPS
ADOUT12
ADOUT34
VDOUT0
VDOUT7
VSTO
VFRAME
VEOUT
SEG2
ECMONM0
ECMONM1
ECMONM2
ECMONS0
ECMONS1
ECMONS2
AXD0
AXD7
AXE
AXRQ
CVID0
CVID7
VID0
VID7
QI0
QI1
H SYNC
SYNC
FRM P
CERR
CS
VID
SYS
STAT0
STAT1
STRB
SYS DATA 0
SYS DATA 7
VIDEO A 0
VIDEO A 7
Q INDEX A0
Q INDEX A1
HD SYNC A
VIDEO B 0
VIDEO B 7
Q INDEX B0
Q INDEX B1
HD SYNC B
SSYSTEM RESET
SYS STATUS 0
SYS STATUS 1
SYS STROBE
SYS CS
CLK46
VIDEO 0 – VIDEO 15
HD SYNC
AU DEC 1/2
AU DEC 3/4
CNC OUT A0 – CNC OUT A7
CNC OUT B0 – CNC OUT B7
CNC SYNC OUT
VPR,CN202-19
VPR,CN202-18
VPR,CN202-17 – VPR,CN202-10
VPR,CN202-9 – VPR,CN202-2
VPR,CN202-1
SEG
ECMON A/E
ECMON B/F
ECMON C/G
ECMON D/H
PB SEG1
ERROR FLAG A/E
ERROR FLAG B/F
ERROR FLAG C/G
ERROR FLAG D/H
MB,CN908-26
MB,CN908-30
MB,CN908-29
MB,CN908-28
MB,CN908-27

DPR-125 (2/2), VPR-53

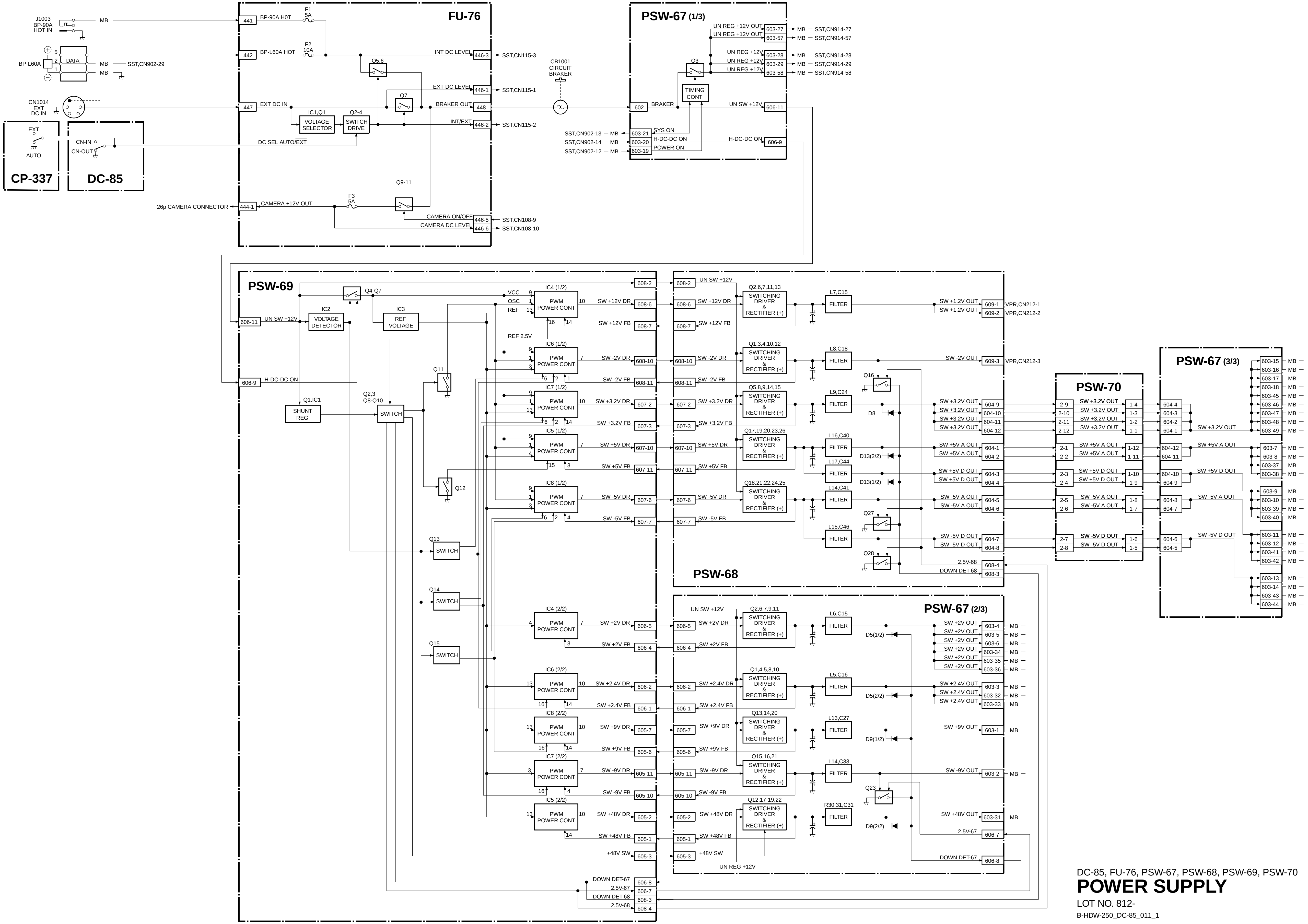
SYSTEM CONTROL (2)

LOT NO. 812-

B-HDW-250_DRP-125_011_2


EQ-76
DRUM ASS'Y
ROTALY TRANS
REC AMP
HEAD AMP
VPR,CN907-23 — MB 911-21 REC DATA A/E (X)
VPR,CN907-24 — MB 911-22 REC DATA A/E (Y)
VPR,CN907-21 — MB 911-19 REC DATA B/F (X)
VPR,CN907-22 — MB 911-20 REC DATA B/F (Y)
VPR,CN907-19 — MB 911-17 REC DATA C/G (X)
VPR,CN907-20 — MB 911-18 REC DATA C/G (Y)
VPR,CN907-17 — MB 911-15 REC DATA D/H (X)
VPR,CN907-18 — MB 911-16 REC DATA D/H (Y)
VPR,CN907-25 — MB 911-23 REC CK (X)
VPR,CN907-26 — MB 911-24 REC CK (Y)
IC501
IC503
FF
IC504
IC502
REC BUFF
MPX VCC
SST,CN904-26 — MB 912-16 R/P REC A
912-15 R/P ENV A
912-14 R/P ENV E
Q506,507
IC510
IC508
ENV
IC506
IC511
IC509
IC507
VPR,CN907-27 — MB 911-25 MPX DATA (X)
VPR,CN907-28 — MB 911-26 MPX DATA (Y)
VPR,CN907-29 — MB 911-27 MPX CK (X)
VPR,CN907-30 — MB 911-28 MPX CK (Y)
IC505
305-10 REC DATA A/E (X) 1-1B
305-1 REC DATA A/E (Y) 1-1A
305-2 REC DATA B/F (X) 1-2A
305-12 REC DATA B/F (Y) 1-3B
305-13 REC DATA C/G (X) 1-4B
305-4 REC DATA C/G (Y) 1-4A
305-5 REC DATA D/H (X) 1-5A
305-15 REC DATA D/H (Y) 1-6B
REC A
REC B
REC C
REC D
REC E
REC F
REC G
REC H
305-16 MPX DATA (X) 1-7B
305-7 MPX DATA (Y) 1-7A
305-8 MPX CK (X) 1-8A
305-18 MPX CK (Y) 1-9B
MPX DECODER
D/A CONV.
REC EN
REC CURR
PB SEL
VPR,CN910-15 — MB 913-25 PB DATA A/E (X)
VPR,CN910-16 — MB 913-26 PB DATA A/E (Y)
VPR,CN910-13 — MB 913-23 PB CK A/E (X)
VPR,CN910-14 — MB 913-24 PB CK A/E (Y)
SST,CN904-25 — MB 913-10 PB A/E SEL
SST,CN904-30 — MB 913-6 PB ENV A/E
IC207
IC108(1/2)
FF
IC106(1/2)
VITERBI DECODER
IC108(2/2)
IC105
A/D CONV.
RV103 VREF
Q102
DELAY
IC102
AMP
IC204
IC101
BUFFER
IC103
PB EQ
EQOX EQOY OFS CKOY PBSW ENVO AGCI AMPA BALA AMPB BALB SPD
PBIX PBIY EQI2 EQI1 EQI0 PBOX PBOY REX REY CPOX CPOY PLLY PLLX EQEN
LPF
DL101
Q100,103-106
PH
DEL A/E
AMPA PHSA AMPE PHSE SPD A/E
301-4 PB A/E (X) 2-1A
301-5 PB A/E (Y) 2-1B
301-1 PB B/F (X) 2-3B
301-2 PB B/F (Y) 2-3A
303-4 PB C/G (X) 2-4A
303-5 PB C/G (Y) 2-4B
303-1 PB D/H (X) 2-6B
303-2 PB D/H (Y) 2-5A
CONF A
CONF B
CONF C
CONF D
CONF E
CONF F
CONF G
CONF H
PB A/E BLOCK
VPR,CN910-11 — MB 913-21 PB DATA B/F (X)
VPR,CN910-12 — MB 913-22 PB DATA B/F (Y)
VPR,CN910-9 — MB 913-19 PB CK B/F (X)
VPR,CN910-10 — MB 913-20 PB CK B/F (Y)
SST,CN904-24 — MB 913-9 PB B/F SEL
SST,CN904-29 — MB 913-5 PB ENV B/F
IC207 IC206(1/2) IC106(2/2) IC206(2/2) IC205 IC202 IC203 IC204 IC201 IC201
AMPB PHSB AMPF PHSF SPD B/F
DEL B/F
PB B/F BLOCK
VPR,CN910-7 — MB 913-17 PB DATA C/G (X)
VPR,CN910-8 — MB 913-18 PB DATA C/G (Y)
VPR,CN910-5 — MB 913-15 PB CK C/G (X)
VPR,CN910-6 — MB 913-16 PB CK C/G (Y)
SST,CN904-23 — MB 913-8 PB C/G SEL
SST,CN904-28 — MB 913-4 PB ENV C/G
IC407 IC308(1/2) IC306(1/2) IC308(2/2) IC305 IC302 IC303 IC404 IC301 IC301
AMPC PHSC AMPG PHSG SPD C/G
DEL C/G
PB C/G BLOCK
VPR,CN910-3 — MB 913-13 PB DATA D/H (X)
VPR,CN910-4 — MB 913-14 PB DATA D/H (Y)
VPR,CN910-1 — MB 913-11 PB CK D/H (X)
VPR,CN910-2 — MB 913-12 PB CK D/H (Y)
SST,CN904-22 — MB 913-7 PB D/H SEL
SST,CN904-27 — MB 913-3 PB ENV D/H
IC407 IC406(1/2) IC306(2/2) IC406(2/2) IC405 IC402 IC403 IC404 IC401 IC401
AMPD PHSD AMPH PHSH SPD D/H
DEL D/H
PB D/H BLOCK
PB EQ
IC200
TEMP SENSOR
IC208
TEMP EQ
912-3 — MB — SST,CN902-28
SST,CN903-26 — MB 912-4 EQ EN
SST,CN903-27 — MB 912-5 DRUM REC EN
SST,CN903-28 — MB 912-6 REC EN
SST,CN903-29 — MB 912-7 PB EN
SST,CN903-30 — MB 912-8 R/P EN
S601
IC602-604
POWER CONTROL
MPX VCC
REC BUFF
PB EQ
IC605
IC606
S → P & D/A CONV.
AMPA PHSA AMPE PHSE SPD A/E AMPB PHSB AMPF PHSF SPD B/F DEL A/E DEL B/F
AMPC PHSC AMPG PHSG SPD C/G AMPD PHSD AMPH PHSH SPD D/H DEL C/G DEL D/H
SST,CN904-1 — MB 912-9 EQ SIO
SST,CN904-2 — MB 912-10 EQ SCK
SST,CN904-3 — MB 912-11 EQ STR1
SST,CN904-4 — MB 912-12 EQ STR2
ADA,CN557-1 — MB 911-7 CUE MIX (X)
CP,CN401-10 — MB 911-11 CUE PB (X)
SST,CN903-3 — MB 911-14 CUE EE
SST,CN903-2 — MB 911-13 CUE REC ON
TP701
IC702
BUFFER
TP703
IC705
BUFFER
IC706
TP702
IC701,703 Q703
TIMING GEN.
RV701 CUE REC LEVEL
Q701,702
MUTE
IC704
REC EQ AMP
TP704
Q706,707
BIAS TRAP
LV701
Q710,711
REC PB
Q713
MUTE
RV705
TP707
IC707
PB EQ AMP
RV704
Q712
TP705
CT701 Q708,709
BIAS OSC & DRIVE
SW
Q704,705
CV701
BIAS LEVEL
CUE HEAD (X) 304-1
CUE HEAD (X) 304-2
H1003 CUE HEAD

REC & PB PROCESSOR
EQ-76
LOT NO. 812-
B-HDW-250_EQ-76_011_1


FU-76
PSW-67 (1/3)
PSW-67 (2/3)
PSW-67 (3/3)
PSW-68
PSW-69
PSW-70
CP-337
DC-85
J1003 BP-90A HOT IN
BP-L60A
DATA
CN1014 EXT DC IN
EXT
AUTO
CN-IN
CN-OUT
DC SEL AUTO/EXT
BP-90A HOT
BP-L60A HOT
EXT DC IN
F1 5A
F2 10A
F3 5A
Q5,6
Q7
IC1,Q1 VOLTAGE SELECTOR
Q2-4 SWITCH DRIVE
Q9-11
INT DC LEVEL
EXT DC LEVEL
BRAKER OUT
INT/EXT
CAMERA +12V OUT
CAMERA ON/OFF
CAMERA DC LEVEL
26p CAMERA CONNECTOR
SST,CN115-3
SST,CN115-1
SST,CN115-2
SST,CN108-9
SST,CN108-10
SST,CN902-29
CB1001 CIRCUIT BRAKER
Q3
TIMING CONT
UN REG +12V OUT
UN REG +12V
UN SW +12V
BRAKER
SYS ON
H-DC-DC ON
POWER ON
SST,CN914-27
SST,CN914-57
SST,CN914-28
SST,CN914-29
SST,CN914-58
SST,CN902-13
SST,CN902-14
SST,CN902-12
MB
Q4-Q7
IC2 VOLTAGE DETECTOR
IC3 REF VOLTAGE
Q1,IC1 SHUNT REG
Q2,3 Q8-Q10 SWITCH
Q11
Q12
Q13 SWITCH
Q14 SWITCH
Q15 SWITCH
VCC
OSC
REF
REF 2.5V
IC4 (1/2) PWM POWER CONT
IC6 (1/2) PWM POWER CONT
IC7 (1/2) PWM POWER CONT
IC5 (1/2) PWM POWER CONT
IC8 (1/2) PWM POWER CONT
IC4 (2/2) PWM POWER CONT
IC6 (2/2) PWM POWER CONT
IC8 (2/2) PWM POWER CONT
IC7 (2/2) PWM POWER CONT
IC5 (2/2) PWM POWER CONT
SW +12V DR
SW +12V FB
SW -2V DR
SW -2V FB
SW +3.2V DR
SW +3.2V FB
SW +5V DR
SW +5V FB
SW -5V DR
SW -5V FB
SW +2V DR
SW +2V FB
SW +2.4V DR
SW +2.4V FB
SW +9V DR
SW +9V FB
SW -9V DR
SW -9V FB
SW +48V DR
SW +48V FB
+48V SW
DOWN DET-67
2.5V-67
DOWN DET-68
2.5V-68
UN REG +12V
Q2,6,7,11,13 SWITCHING DRIVER & RECTIFIER (+)
Q1,3,4,10,12 SWITCHING DRIVER & RECTIFIER (+)
Q5,8,9,14,15 SWITCHING DRIVER & RECTIFIER (+)
Q17,19,20,23,26 SWITCHING DRIVER & RECTIFIER (+)
Q18,21,22,24,25 SWITCHING DRIVER & RECTIFIER (+)
Q2,6,7,9,11 SWITCHING DRIVER & RECTIFIER (+)
Q1,4,5,8,10 SWITCHING DRIVER & RECTIFIER (+)
Q13,14,20 SWITCHING DRIVER & RECTIFIER (+)
Q15,16,21 SWITCHING DRIVER & RECTIFIER (+)
Q12,17-19,22 SWITCHING DRIVER & RECTIFIER (+)
L7,C15 FILTER
L8,C18 FILTER
L9,C24 FILTER
L16,C40 FILTER
L17,C44 FILTER
L14,C41 FILTER
L15,C46 FILTER
L6,C15 FILTER
L5,C16 FILTER
L13,C27 FILTER
L14,C33 FILTER
R30,31,C31 FILTER
Q16
Q27
Q28
Q23
D8
D13(2/2)
D13(1/2)
D5(1/2)
D5(2/2)
D9(1/2)
D9(2/2)
SW +1.2V OUT
SW -2V OUT
SW +3.2V OUT
SW +5V A OUT
SW +5V D OUT
SW -5V A OUT
SW -5V D OUT
SW +2V OUT
SW +2.4V OUT
SW +9V OUT
SW -9V OUT
SW +48V OUT
VPR,CN212-1
VPR,CN212-2
VPR,CN212-3

DC-85, FU-76, PSW-67, PSW-68, PSW-69, PSW-70

POWER SUPPLY

LOT NO. 812-

B-HDW-250_DC-85_011_1

Section 4
Board Layouts

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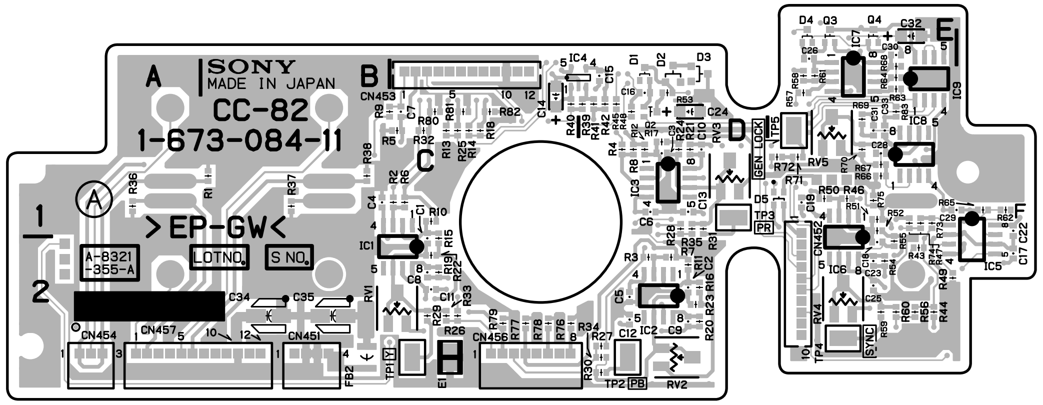
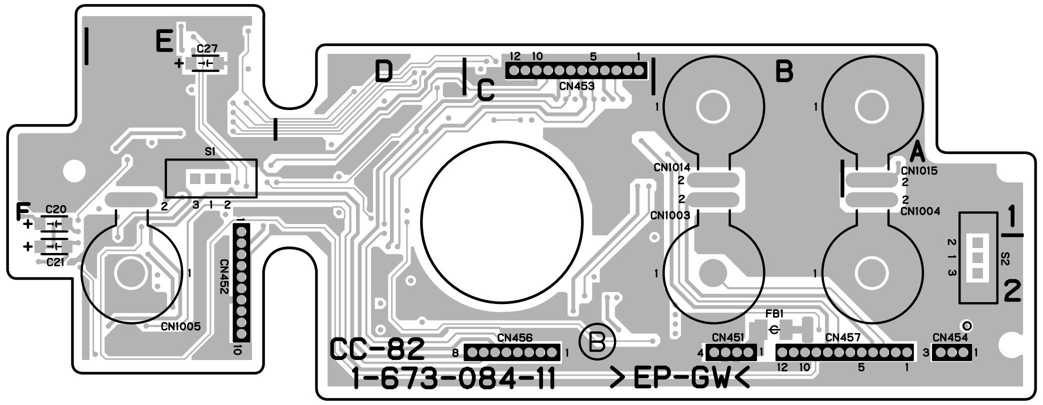

SONY
MADE IN JAPAN
CC-82
1-673-084-11
>EP-GW<
A-8321
-355-A
LOTNO.
S NO.
A
B
C
D
E
F
H
1
2
CN451
CN453
CN454
CN456
CN457
CN452
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
RV1
RV2
RV3
RV4
GEN LOCK
SYNC
TP1
TP2
TP3
TP4
TP5
FB2
E1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

CC-82 -A SIDE-
SUFFIX: -11


CC-82
1-673-084-11
>EP-GW<
A
B
C
D
E
F
1
2
CN453
CN1014
CN1015
CN1003
CN1004
CN1005
CN452
CN456
CN451
CN457
CN454
S1
S2
FB1
C20
C21
C27

CC-82 -B SIDE-
SUFFIX: -11

CC-82(1-673-084-11)

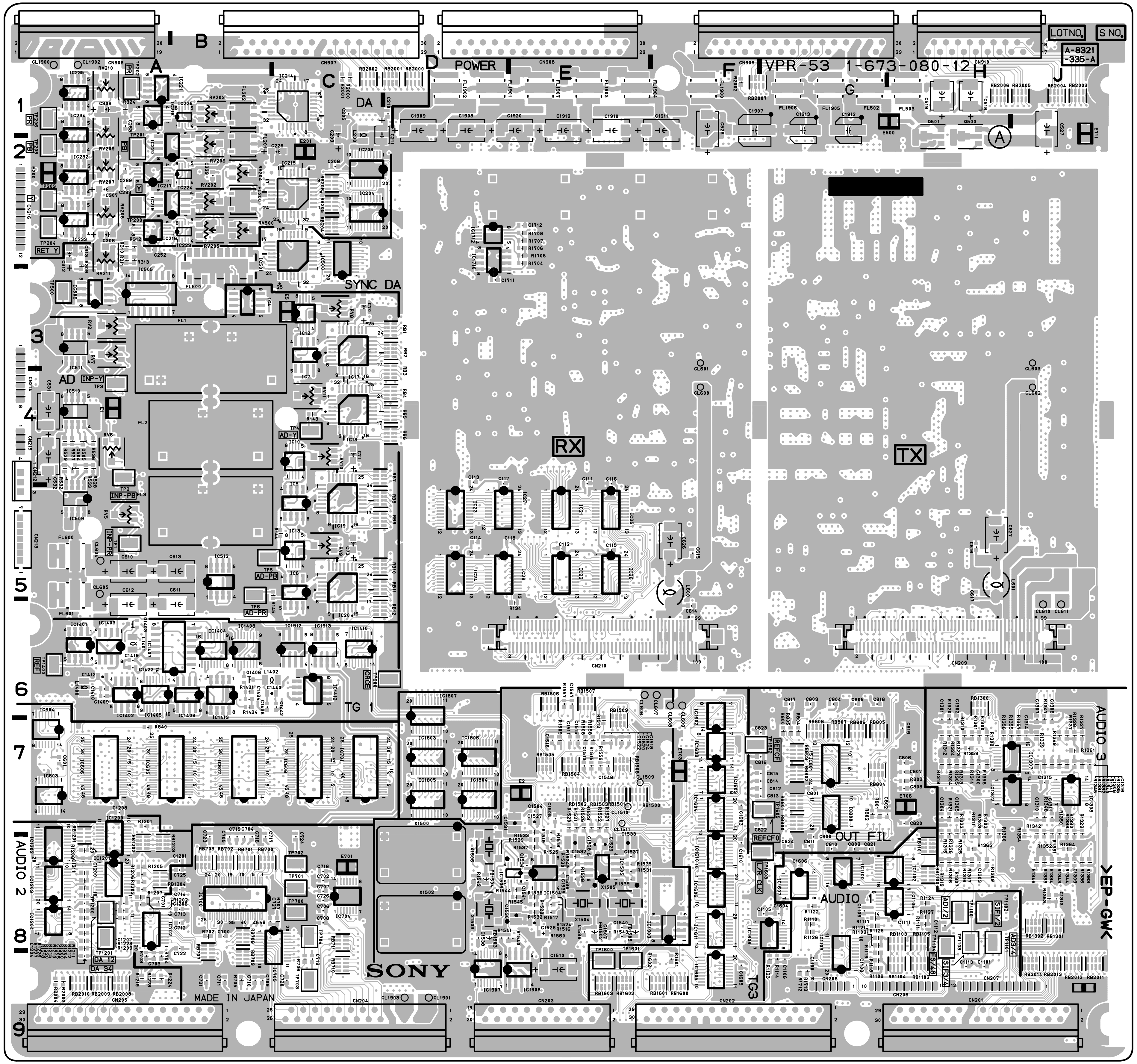
*:B SIDE

CN451	B2	Q2	D1
CN452	E2	Q3	E1
CN453	C1	Q4	E1
CN454	A2		
CN456	C2	RV1	C2
CN457	A2	RV2	D2
CN1003	*B2	RV3	D1
CN1004	*A2	RV4	E2
CN1005	*E2		
CN1014	*B1	S1	*E1
CN1015	*A1	S2	*A2
D1	D1	TP1	C2
D2	D1	TP2	D2
D3	D1	TP3	D1
D4	E1	TP4	E2
D5	E1	TP5	E1
E1	C2		
FB1	*B2		
FB2	B2		
IC1	C1		
IC2	D2		
IC3	D1		
IC4	C1		
IC5	E1		
IC6	E1		
IC7	E1		
IC8	E1		
IC9	E1		

VPR-53(1-673-080-12)

*:B SIDE

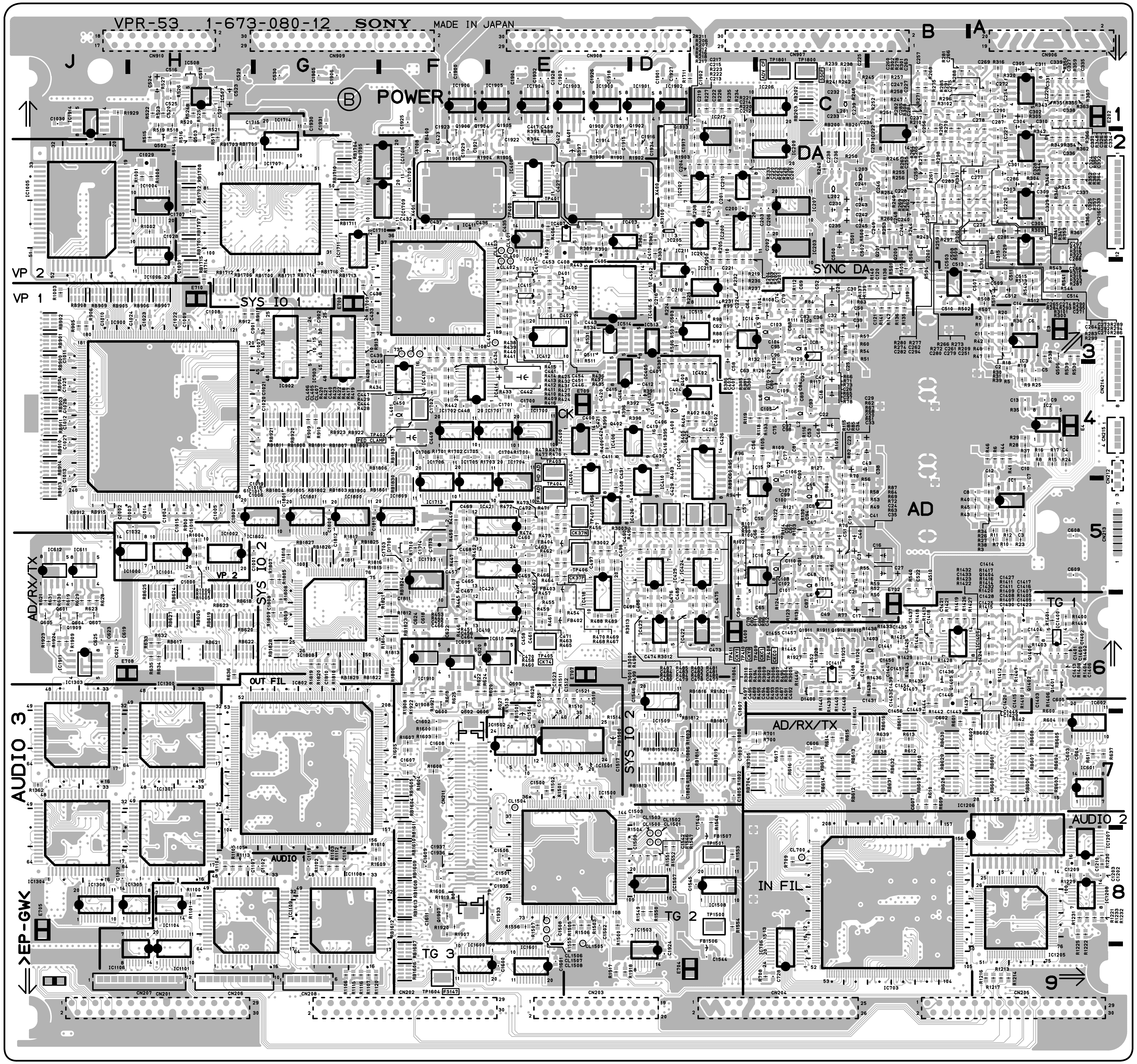
CL400	*E3
CL401	*E2
CL402	*E3
CL403	*E2
CL404	*E3
CL405	*F3
CL406	*F3
CL407	*F3
CL600	F4
CL601	F3
CL602	J4
CL603	J3
CL604	A5
CL605	A5
CL606	E6
CL607	F6
CL608	F6
CL609	F6
CL610	J6
CL611	J6
CL700	*C8
CL1500	*D8
CL1501	*D8
CL1502	*D8
CL1503	*D8
CL1504	*E7
CL1505	*E8
CL1506	*E8
CL1507	*E8
CL1508	*E8
CL1509	E7
CL1510	E7
CL1511	E7
CL1900	A1
CL1901	D9
CL1902	A1
CL1903	D9
CN201	H9
CN202	F9
CN203	E9
CN204	C9
CN205	A9
CN206	*H9
CN207	*H9
CN208	*G9
CN209	H6
CN210	E6
CN211	*F7
CN212	A4
CN213	A5
CN214	*A4
CN215	*A4
CN216	*A2
CN906	A1
CN907	C1
CN908	E1
CN909	G1
CN910	H1
D200	*B2
D400	*E3
D401	*E3
D402	*E3
D1400	*C6
D1700	*F5
E1	A4
E2	E7
E3	*A3
E4	*A4
E5	C3
E200	A2
E201	C2
E202	*A1
E400	*D6
E500	H1
E700	*G3
E701	C8
E702	*B6
E703	F7
E704	*D9
E705	*J8
E706	H7
E707	*E6
E708	*J6
E709	*E4
E710	*H3
E711	J1
FB400	*F2
FB401	*E2
FB402	*E6
FB403	*E5
FB404	*E5
FB1500	*E7
FB1501	*E7
FB1502	E8
FB1503	D8
FB1504	D8
FB1505	E8
FB1506	*D9
FB1507	*D8
FL1	B3
FL2	B4
FL3	B5
FL200	B2
FL201	B2
FL202	B1
FL500	B3
FL502	G1
FL503	H1
FL600	A5
FL601	A5
FL1900	F1
FL1901	D1
FL1902	D1
FL1903	E1
FL1904	E1
FL1905	G1
FL1906	G1
FL1907	E1
IC1	*A5
IC2	*A4
IC3	*A3
IC4	B3
IC5	C5
IC6	C5
IC7	C3
IC8	*C3
IC9	*C5
IC10	C4
IC11	*C6
IC12	C3
IC13	C5
IC14	*D3
IC15	*C4
IC16	*C5
IC17	C3
IC18	C4
IC19	C5
IC20	C5
IC21	E5
IC22	E5
IC23	D5
IC24	D5
IC25	E5
IC26	E5
IC27	D5
IC28	D5
IC200	*D2
IC201	*D2
IC202	*D2
IC203	*C3
IC204	C2
IC205	*D2
IC206	*C1
IC207	*C2
IC208	C2
IC209	*C2
IC210	*D2
IC211	*D2
IC212	*D2
IC213	*D3
IC214	C1
IC215	C2
IC216	A2
IC217	A2
IC218	A1
IC219	B2
IC220	B2
IC221	B1
IC222	*B1
IC223	B2
IC224	B2
IC225	B1
IC226	*A2
IC227	*A2
IC228	*A1
IC229	*A2
IC232	A2
IC233	A2
IC234	A2
IC235	A1
IC400	*E4
IC401	*E2
IC402	*D4
IC403	*E2
IC404	*E4
IC405	*D4
IC406	*E4
IC407	*E2
IC408	*E2
IC409	*D4
IC410	*E4
IC411	*F3
IC412	*E3
IC413	*F4
IC414	*E4
IC415	*E3
IC416	*D3
IC417	*E3
IC418	*E5
IC419	*E6
IC420	*E5
IC421	*E5
IC422	*D6
IC423	*D6
IC424	*D5
IC425	*D5
IC426	*E5
IC500	C3
IC501	C2
IC503	*B3
IC505	A3
IC506	A3
IC507	*H1
IC508	*H1
IC509	A5
IC510	A4
IC511	A3
IC512	B5
IC513	*D3
IC514	*E3
IC515	*D3
IC601	*A7
IC602	*A7
IC603	A7
IC604	A6
IC605	B7
IC606	A7
IC607	B7
IC608	C7
IC609	*F6
IC610	*E6
IC611	*J5
IC612	*J5
IC700	B8
IC701	D7
IC702	A8
IC703	*B8
IC704	C8
IC705	B8
IC706	*C9
IC800	G7
IC801	G7
IC802	*G7
IC900	*H4
IC902	*G4
IC903	*G4
IC1000	*J5
IC1001	*H5
IC1002	*H5
IC1004	*H2
IC1005	*J2
IC1006	*H2
IC1100	G8
IC1101	*H9
IC1102	H8
IC1103	G9
IC1104	*H8
IC1105	H8
IC1106	*H8
IC1108	*G8
IC1109	*H8
IC1200	A8
IC1201	A8
IC1202	A8
IC1203	A8
IC1204	A8
IC1205	*A8
IC1206	*A8
IC1207	*A8
IC1208	*A8
IC1300	*H7
IC1301	*H8
IC1302	H7
IC1303	*J7
IC1304	*J8
IC1305	*J8
IC1306	*J8
IC1307	H7
IC1308	J7
IC1400	*A6
IC1401	A6
IC1402	A6
IC1403	A6
IC1404	B6
IC1405	A6
IC1406	*B6
IC1407	B6
IC1408	B6
IC1409	B6
IC1410	C6
IC1411	*C6
IC1412	C6
IC1413	B6
IC1500	*E8
IC1501	*E7
IC1502	*E7
IC1503	*D8
IC1504	E8
IC1505	E8
IC1506	E8
IC1507	*D8
IC1508	*D8
IC1509	*D7
IC1600	*E9
IC1601	*E9
IC1602	F7
IC1603	F7
IC1604	F7
IC1605	F9
IC1606	F8
IC1607	G8
IC1608	F7
IC1609	F8
IC1610	F8
IC1611	F8
IC1700	*E4
IC1701	*F4
IC1702	*F4
IC1703	*F6
IC1704	*E5
IC1705	*F5
IC1706	*F5
IC1707	*G2
IC1708	*G2
IC1709	*G2
IC1710	D3
IC1711	*G2
IC1712	D2
IC1713	*F5
IC1714	*G2
IC1800	*G5
IC1801	*G5
IC1802	*H5
IC1803	D7
IC1804	D7
IC1805	D7
IC1806	D7
IC1807	D7
IC1808	*G6
IC1809	*F5
IC1900	*E1
IC1901	*D1
IC1902	*D1
IC1903	*E1
IC1904	*E1
IC1905	*E1
IC1906	*F1
IC1907	D9
IC1908	E9
IC1909	F8
IC1910	*F6
IC1911	*J6
IC1912	C6
IC1913	C6
IC1914	*J1
L1	*C3
L2	*C4
L3	*C5
L4	*C5
L5	*C3
L6	*C4
L7	*C5
L8	*C5
L200	C1
L201	*C1
L202	*C2
L203	*C2
L400	*D4
L401	*F4



VPR-53 -A SIDE-

SUFFIX: -12

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher



VPR-53 -B SIDE-

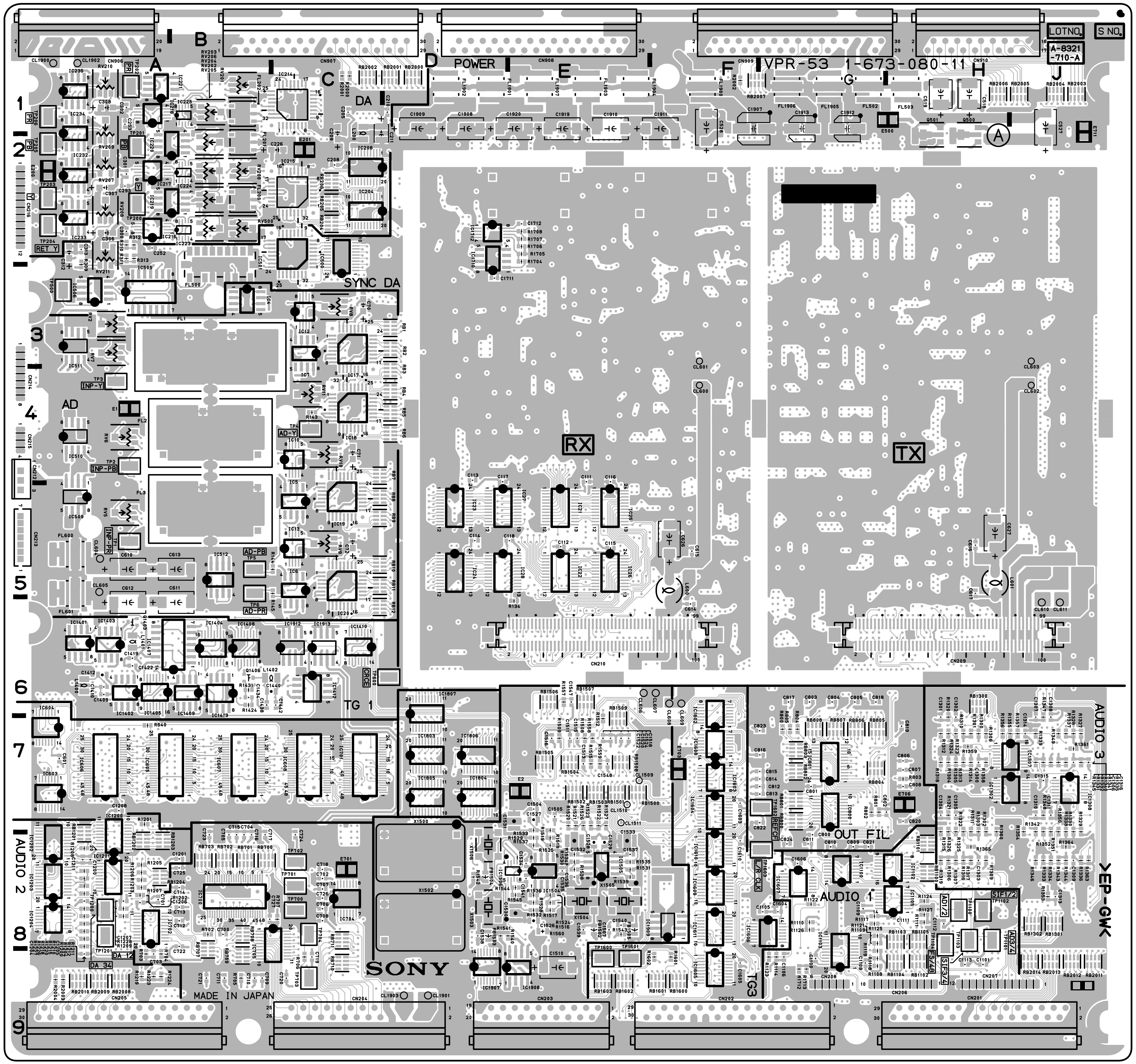
SUFFIX: -12

L600	F5
L601	H5
L1400	A6
L1401	A6
L1402	B6
L1403	*B6
Q1	*C3
Q2	*C4
Q3	*C5
Q200	*B2
Q201	*B2
Q400	*D4
Q401	*D4
Q402	*E4
Q500	H2
Q501	H2
Q502	*H2
Q503	*H2
Q504	A4
Q505	A4
Q506	*A3
Q510	*B5
Q511	*E3
Q600	*F6
Q601	*J6
Q602	*F6
Q603	*E6
Q604	*J6
Q605	*J6
Q606	*F6
Q607	*J6
Q1400	*A6
Q1401	*A6
Q1402	*A6
Q1403	A6
Q1404	*A6
Q1405	*B6
Q1406	B6
Q1407	*B6
Q1408	*C6
Q1900	*E2
Q1901	*E2
Q1902	*D2
Q1903	*D2
Q1904	*F2
Q1905	*E2
Q1906	*F2
Q1907	*F8
Q1908	*F6
Q1909	*J6
Q1910	*C6
Q1911	*C6
RB1	D3
RB2	D3
RB3	D4
RB4	D4
RB5	D4
RB6	D4
RB7	C4
RB8	C5
RB9	C5
RB10	C5
RB11	C5
RB12	C6
RB200	*C2
RB201	*C2
RB202	*C1
RB203	*C1
RB204	C2
RB205	C2
RB206	C2
RB600	*A7
RB601	*A7
RB602	*A7
RB603	*A7
RB604	*A7
RB605	*A7
RB606	*A7
RB607	*A7
RB608	*A7
RB609	*B7
RB610	*B7
RB611	*B7
RB612	*C7
RB613	*C7
RB614	*C7
RB615	*C7
RB616	*B7
RB617	*H6
RB618	*H5
RB619	*H6
RB620	*H6
RB621	*H6
RB622	*H6
RB623	*H5
RB624	*H5
RB625	*H5
RB626	*H6
RB627	*H6
RB628	*B7
RB629	*B7
RB630	*B7
RB631	*B7
RB632	*B7
RB700	B8
RB701	B8
RB702	B8
RB703	B8
RB704	*C7
RB705	*C7
RB707	B9
RB708	B8
RB709	B9
RB710	C9
RB711	C8
RB800	G7
RB801	G7
RB802	G7
RB803	G7
RB804	G7
RB805	G7
RB806	G7
RB807	G7
RB808	G7
RB900	*J4
RB901	*J3
RB902	*J3
RB903	*J4
RB904	*J4
RB905	*J3
RB906	*H3
RB907	*H3
RB908	*J3
RB909	*J3
RB910	*J4
RB911	*J4
RB912	*J5
RB913	*J5
RB914	*J4
RB915	*J5
RB920	*G4
RB921	*G4
RB922	*G4
RB923	*G4
RB1100	H8
RB1101	H8
RB1102	H9
RB1103	H8
RB1104	H9
RB1105	H8
RB1201	A8
RB1202	A8
RB1203	A8
RB1204	A8
RB1300	H6
RB1301	J8
RB1302	J8
RB1500	E7
RB1501	E7
RB1502	E7
RB1503	E7
RB1504	E7
RB1505	E7
RB1506	E6
RB1507	E6
RB1508	E7
RB1509	E7
RB1600	F9
RB1601	F9
RB1602	E9
RB1603	E9
RB1604	*F7
RB1605	*F7
RB1606	*F9
RB1607	*F9
RB1608	*F8
RB1609	*F8
RB1610	*F8
RB1611	*F8
RB1612	*F8
RB1613	*F8
RB1700	*G3
RB1701	*H2
RB1702	*H2
RB1703	*H2
RB1704	*G2
RB1705	*G2
RB1706	*H3
RB1707	*H2
RB1708	*H2
RB1709	*H2
RB1710	*G2
RB1711	*G2
RB1712	*H3
RB1713	*G3
RB1714	*G3
RB1715	*H3
RB1716	*G3
RB1717	*G3
RB1800	*G5
RB1801	*F5
RB1802	*G5
RB1803	*G5
RB1804	*G5
RB1805	*G5
RB1806	*F4
RB1807	*G4
RB1808	*G4
RB1809	*G4
RB1810	*G4
RB1811	*G4
RB1812	*D7
RB1813	*D7
RB1814	*D7
RB1815	*D7
RB1816	*D6
RB1817	*D7
RB1818	*D7
RB1819	*D7
RB1820	*D7
RB1821	*D6
RB1822	*G6
RB1823	*F6
RB1824	*F5
RB1825	*G5
RB1826	*G5
RB1827	*G5
RB1828	*G6
RB1829	*G6
RB1830	*F5
RB1831	*F4
RB2000	D1
RB2001	D1
RB2002	C1
RB2003	J1
RB2004	J1
RB2005	J1
RB2006	H1
RB2007	F1
RB2008	A9
RB2009	A9
RB2010	A9
RB2011	J9
RB2012	J9
RB2013	J9
RB2014	J9
RV2	A3
RV5	A5
RV6	A4
RV7	A3
RV8	C3
RV9	C5
RV10	C4
RV11	C4
RV202	B2
RV203	B1
RV204	B2
RV205	B2
RV206	B2
RV207	A2
RV208	A2
RV209	A1
RV210	A1
RV211	A2
RV500	B2
TP1	A5
TP2	A4
TP3	A4
TP4	C4
TP5	B5
TP6	B5
TP200	A2
TP201	A2
TP202	A1
TP203	A2
TP204	A2
TP205	A2
TP206	A1
TP400	*E2
TP401	*E2
TP402	*F4
TP403	*E4
TP404	*E5
TP405	*E6
TP406	*E5
TP407	*E5
TP408	*D5
TP409	*D5
TP410	*D5
TP411	*D5
TP500	A3
TP600	D6
TP700	C8
TP701	C8
TP702	C8
TP703	C9
TP704	C8
TP1100	H8
TP1101	H8
TP1102	H8
TP1103	H8
TP1104	H8
TP1200	A8
TP1201	A8
TP1400	A6
TP1500	*D8
TP1501	*D8
TP1600	E9
TP1601	E9
TP1602	F7
TP1603	G8
TP1604	*F9
TP1605	G7
TP1800	*C1
TP1801	*C1
X400	*E2
X401	*F2
X1500	D8
X1502	D8
X1503	D8
X1504	E8
X1505	E8
X1506	D8

VPR-53(1-673-080-11)

*:B SIDE

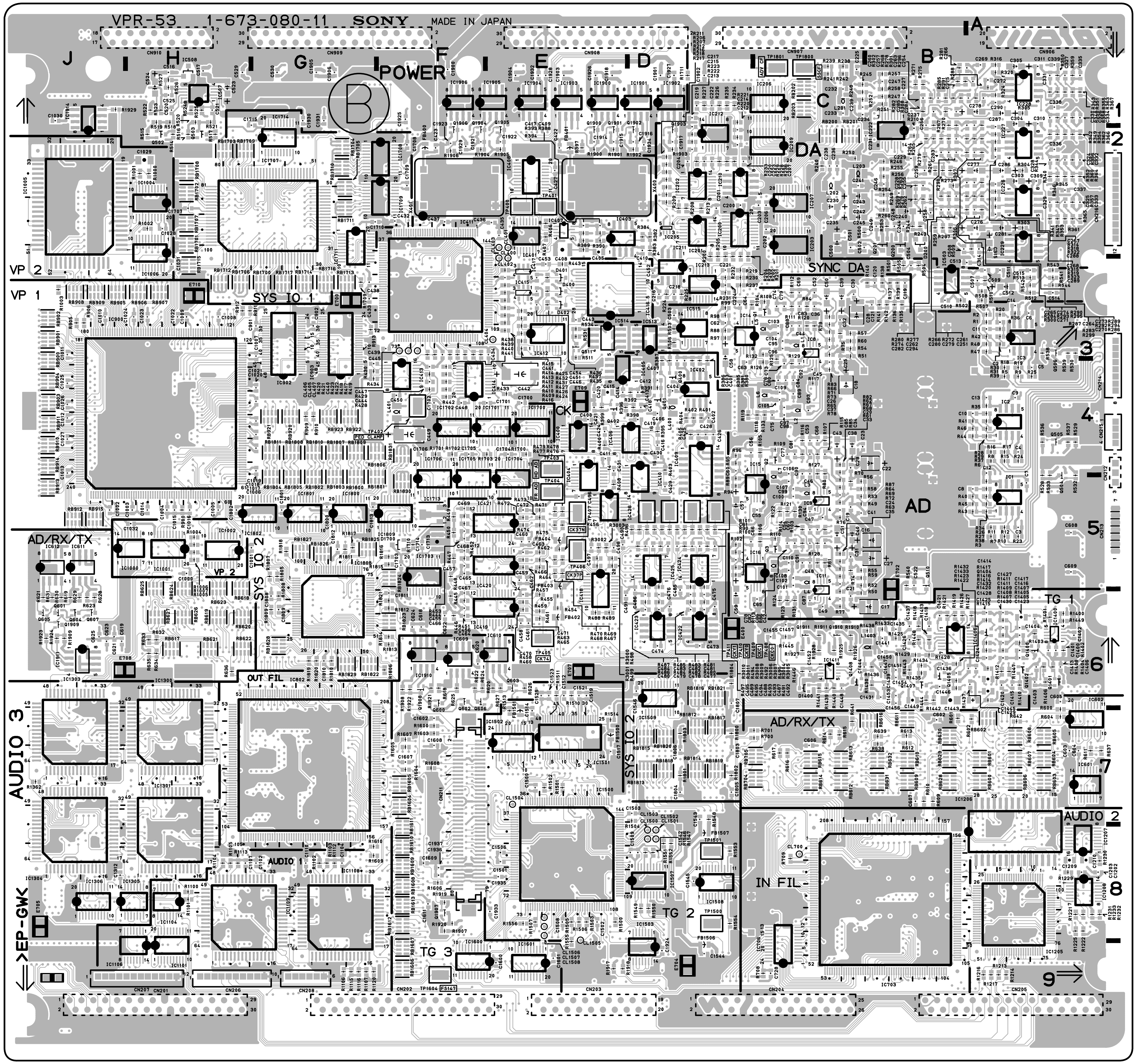
CL400	*E3
CL401	*E2
CL402	*E3
CL403	*E2
CL404	*E3
CL405	*F3
CL406	*F3
CL407	*F3
CL600	F4
CL601	F3
CL602	J4
CL603	J3
CL604	A5
CL605	A5
CL606	E6
CL607	F6
CL608	F6
CL609	F6
CL610	J6
CL611	J6
CL700	*C8
CL1500	*D8
CL1501	*D8
CL1502	*D8
CL1503	*D8
CL1504	*E7
CL1505	*E8
CL1506	*E8
CL1507	*E8
CL1508	*E8
CL1509	E7
CL1510	E7
CL1511	E7
CL1900	A1
CL1901	D9
CL1902	A1
CL1903	D9
CN201	H9
CN202	F9
CN203	E9
CN204	C9
CN205	A9
CN206	*H9
CN207	*H9
CN208	*G9
CN209	H6
CN210	E6
CN211	*F7
CN212	A4
CN213	A5
CN214	*A4
CN215	*A4
CN216	*A2
CN906	A1
CN907	C1
CN908	E1
CN909	G1
CN910	H1
D200	*B2
D400	*E3
D401	*E3
D402	*E3
D1400	*C6
D1700	*F5
E1	A4
E2	E7
E200	A2
E201	C2
E400	*D6
E500	H1
E700	*G3
E701	C8
E702	*B6
E703	F7
E704	*D9
E705	*J8
E706	H7
E707	*E6
E708	*J6
E709	*E4
E710	*H3
E711	J1
FB400	*F2
FB401	*E2
FB402	*E6
FB403	*E5
FB404	*E5
FB1500	*E7
FB1501	*E7
FB1502	E8
FB1503	D8
FB1504	D8
FB1505	E8
FB1506	*D9
FB1507	*D8
FL1	B3
FL2	B4
FL3	B5
FL200	B2
FL201	B2
FL202	B1
FL500	B3
FL502	G1
FL503	H1
FL600	A5
FL601	A5
FL1900	F1
FL1901	D1
FL1902	D1
FL1903	E1
FL1904	E1
FL1905	G1
FL1906	G1
FL1907	E1
IC1	*A5
IC2	*A4
IC3	*A3
IC4	B3
IC5	C5
IC6	C5
IC7	C3
IC8	*C3
IC9	*C5
IC10	C4
IC11	*C6
IC12	C3
IC13	C5
IC14	*D3
IC15	*C4
IC16	*C5
IC17	C3
IC18	C4
IC19	C5
IC20	C5
IC21	E5
IC22	E5
IC23	D5
IC24	D5
IC25	E5
IC26	E5
IC27	D5
IC28	D5
IC200	*D2
IC201	*D2
IC202	*D2
IC203	*C3
IC204	C2
IC205	*D2
IC206	*C1
IC207	*C2
IC208	C2
IC209	*C2
IC210	*D2
IC211	*D2
IC212	*D2
IC213	*D3
IC214	C1
IC215	C2
IC216	A2
IC217	A2
IC218	A1
IC219	B2
IC220	B2
IC221	B1
IC222	*B1
IC223	B2
IC224	B2
IC225	B1
IC226	*A2
IC227	*A2
IC228	*A1
IC229	*A2
IC232	A2
IC233	A2
IC234	A2
IC235	A1
IC400	*E4
IC401	*E2
IC402	*D4
IC403	*E2
IC404	*E4
IC405	*D4
IC406	*E4
IC407	*E2
IC408	*E2
IC409	*D4
IC410	*E4
IC411	*F3
IC412	*E3
IC413	*F4
IC414	*E4
IC415	*E3
IC416	*D3
IC417	*E3
IC418	*E5
IC419	*E6
IC420	*E5
IC421	*E5
IC422	*D6
IC423	*D6
IC424	*D5
IC425	*D5
IC426	*E5
IC500	C3
IC501	C2
IC503	*B3
IC505	A3
IC506	A3
IC507	*H1
IC508	*H1
IC509	A5
IC510	A4
IC511	A3
IC512	B5
IC513	*D3
IC514	*E3
IC515	*D3
IC601	*A7
IC602	*A7
IC603	A7
IC604	A6
IC605	B7
IC606	A7
IC607	B7
IC608	C7
IC609	*F6
IC610	*E6
IC611	*J5
IC612	*J5
IC700	B8
IC701	D7
IC702	A8
IC703	*B8
IC704	C8
IC705	B8
IC706	*C9
IC800	G7
IC801	G7
IC802	*G7
IC900	*H4
IC902	*G4
IC903	*G4
IC1000	*J5
IC1001	*H5
IC1002	*H5
IC1004	*H2
IC1005	*J2
IC1006	*H2
IC1100	G8
IC1101	*H9
IC1102	H8
IC1103	G9
IC1104	*H8
IC1105	H8
IC1106	*H8
IC1108	*G8
IC1109	*H8
IC1200	A8
IC1201	A8
IC1202	A8
IC1203	A8
IC1204	A8
IC1205	*A8
IC1206	*A8
IC1207	*A8
IC1208	*A8
IC1300	*H7
IC1301	*H8
IC1302	H7
IC1303	*J7
IC1304	*J8
IC1305	*J8
IC1306	*J8
IC1307	H7
IC1308	J7
IC1400	*A6
IC1401	A6
IC1402	A6
IC1403	A6
IC1404	B6
IC1405	A6
IC1406	*B6
IC1407	B6
IC1408	B6
IC1409	B6
IC1410	C6
IC1411	*C6
IC1412	C6
IC1413	B6
IC1500	*E8
IC1501	*E7
IC1502	*E7
IC1503	*D8
IC1504	E8
IC1505	E8
IC1506	E8
IC1507	*D8
IC1508	*D8
IC1509	*D7
IC1600	*E9
IC1601	*E9
IC1602	F7
IC1603	F7
IC1604	F7
IC1605	F9
IC1606	F8
IC1607	G8
IC1608	F7
IC1609	F8
IC1610	F8
IC1611	F8
IC1700	*E4
IC1701	*F4
IC1702	*F4
IC1703	*F6
IC1704	*E5
IC1705	*F5
IC1706	*F5
IC1707	*G2
IC1708	*G2
IC1709	*G2
IC1710	D3
IC1711	*G2
IC1712	D2
IC1713	*F5
IC1714	*G2
IC1800	*G5
IC1801	*G5
IC1802	*H5
IC1803	D7
IC1804	D7
IC1805	D7
IC1806	D7
IC1807	D7
IC1808	*G6
IC1809	*F5
IC1900	*E1
IC1901	*D1
IC1902	*D1
IC1903	*E1
IC1904	*E1
IC1905	*E1
IC1906	*F1
IC1907	D9
IC1908	E9
IC1909	F8
IC1910	*F6
IC1911	*J6
IC1912	C6
IC1913	C6
IC1914	*J1
L1	*C3
L2	*C4
L3	*C5
L4	*C5
L5	*C3
L6	*C4
L7	*C5
L8	*C5
L200	C1
L201	*C1
L202	*C2
L203	*C2
L400	*D4
L401	*F4
L600	F5
L601	H5
L1400	A6
L1401	A6



HDW-250 (J) : S/N 30001 through 30050

VPR-53 -A SIDE-

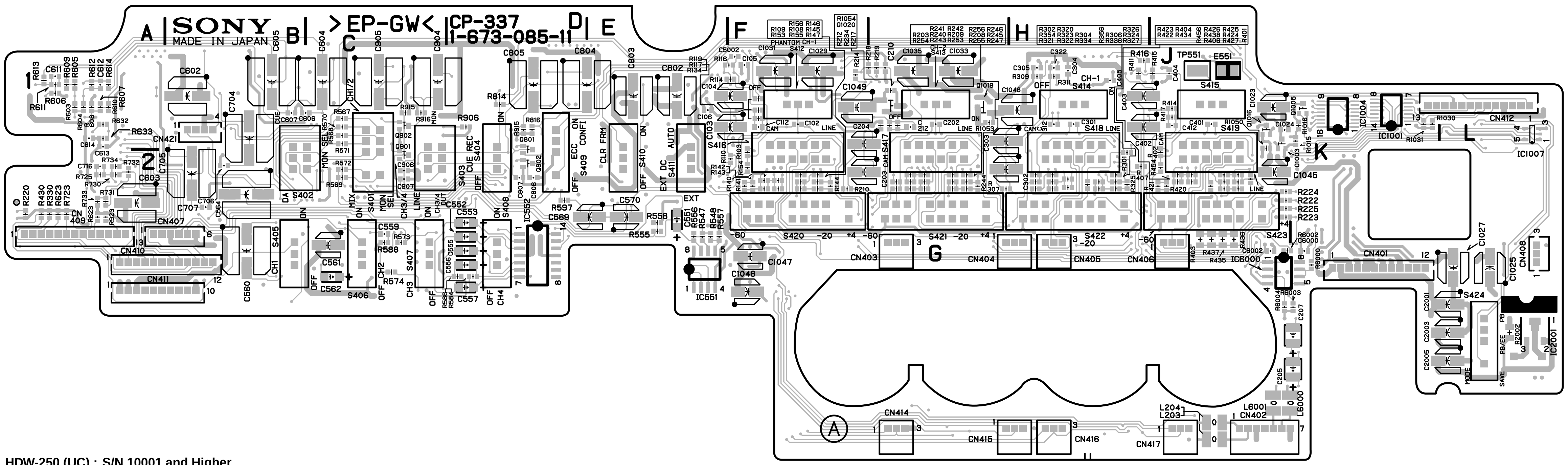
SUFFIX: -11



VPR-53 -B SIDE-

SUFFIX: -11

L1402	B6
L1403	*B6
Q1	*C3
Q2	*C4
Q3	*C5
Q200	*B2
Q201	*B2
Q400	*D4
Q401	*D4
Q402	*E4
Q500	H2
Q501	H2
Q502	*H2
Q503	*H2
Q504	*A5
Q505	*A4
Q506	*A3
Q510	*B5
Q511	*E3
Q600	*F6
Q601	*J6
Q602	*F6
Q603	*E6
Q604	*J6
Q605	*J6
Q606	*F6
Q607	*J6
Q1400	*A6
Q1401	*A6
Q1402	*A6
Q1403	A6
Q1404	*A6
Q1405	*B6
Q1406	B6
Q1407	*B6
Q1408	*C6
Q1900	*E2
Q1901	*E2
Q1902	*D2
Q1903	*D2
Q1904	*F2
Q1905	*E2
Q1906	*F2
Q1907	*F8
Q1908	*F6
Q1909	*J6
Q1910	*C6
Q1911	*C6
RB1	D3
RB2	D3
RB3	D4
RB4	D4
RB5	D4
RB6	D4
RB7	C4
RB8	C5
RB9	C5
RB10	C5
RB11	C5
RB12	C6
RB200	*C2
RB201	*C2
RB202	*C1
RB203	*C1
RB204	C2
RB205	C2
RB206	C2
RB600	*A7
RB601	*A7
RB602	*A7
RB603	*A7
RB604	*A7
RB605	*A7
RB606	*A7
RB607	*A7
RB608	*A7
RB609	*B7
RB610	*B7
RB611	*B7
RB612	*C7
RB613	*C7
RB614	*C7
RB615	*C7
RB616	*B7
RB617	*H6
RB618	*H5
RB619	*H6
RB620	*H6
RB621	*H6
RB622	*H6
RB623	*H5
RB624	*H5
RB625	*H5
RB626	*H6
RB627	*H6
RB628	*B7
RB629	*B7
RB630	*B7
RB631	*B7
RB632	*B7
RB700	B8
RB701	B8
RB702	B8
RB703	B8
RB704	*C7
RB705	*C7
RB707	B9
RB708	B8
RB709	B9
RB710	C9
RB711	C8
RB800	G7
RB801	G7
RB802	G7
RB803	G7
RB804	G7
RB805	G7
RB806	G7
RB807	G7
RB808	G7
RB900	*J4
RB901	*J3
RB902	*J3
RB903	*J4
RB904	*J4
RB905	*J3
RB906	*H3
RB907	*H3
RB908	*J3
RB909	*J3
RB910	*J4
RB911	*J4
RB912	*J5
RB913	*J5
RB914	*J4
RB915	*J5
RB920	*G4
RB921	*G4
RB922	*G4
RB923	*G4
RB1100	H8
RB1101	H8
RB1102	H9
RB1103	H8
RB1104	H9
RB1105	H8
RB1201	A8
RB1202	A8
RB1203	A8
RB1204	A8
RB1300	H6
RB1301	J8
RB1302	J8
RB1500	E7
RB1501	E7
RB1502	E7
RB1503	E7
RB1504	E7
RB1505	E7
RB1506	E6
RB1507	E6
RB1508	E7
RB1509	E7
RB1600	F9
RB1601	F9
RB1602	E9
RB1603	E9
RB1604	*F7
RB1605	*F7
RB1606	*F9
RB1607	*F9
RB1608	*F8
RB1609	*F8
RB1610	*F8
RB1611	*F8
RB1612	*F8
RB1613	*F8
RB1700	*G3
RB1701	*H2
RB1702	*H2
RB1703	*H2
RB1704	*G2
RB1705	*G2
RB1706	*H3
RB1707	*H2
RB1708	*H2
RB1709	*H2
RB1710	*G2
RB1711	*G2
RB1712	*H3
RB1713	*G3
RB1714	*G3
RB1715	*H3
RB1716	*G3
RB1717	*G3
RB1800	*G5
RB1801	*F5
RB1802	*G5
RB1803	*G5
RB1804	*G5
RB1805	*G5
RB1806	*F4
RB1807	*G4
RB1808	*G4
RB1809	*G4
RB1810	*G4
RB1811	*G4
RB1812	*D7
RB1813	*D7
RB1814	*D7
RB1815	*D7
RB1816	*D6
RB1817	*D7
RB1818	*D7
RB1819	*D7
RB1820	*D7
RB1821	*D6
RB1822	*G6
RB1823	*F6
RB1824	*F5
RB1825	*G5
RB1826	*G5
RB1827	*G5
RB1828	*G6
RB1829	*G6
RB1830	*F5
RB1831	*F4
RB2000	D1
RB2001	D1
RB2002	C1
RB2003	J1
RB2004	J1
RB2005	J1
RB2006	H1
RB2007	F1
RB2008	A9
RB2009	A9
RB2010	A9
RB2011	J9
RB2012	J9
RB2013	J9
RB2014	J9
RV2	A3
RV5	A5
RV6	A4
RV7	A3
RV8	C3
RV9	C5
RV10	C4
RV11	C4
RV200	B2
RV201	B1
RV202	B2
RV203	B1
RV204	B2
RV205	B2
RV206	B2
RV207	A2
RV208	A2
RV209	A1
RV210	A1
RV211	A2
RV500	B2
TP1	A5
TP2	A4
TP3	A4
TP4	C4
TP5	B5
TP6	B5
TP200	A2
TP201	A2
TP202	A1
TP203	A2
TP204	A2
TP205	A2
TP206	A1
TP400	*E2
TP401	*E2
TP402	*F4
TP403	*E4
TP404	*E5
TP405	*E6
TP406	*E5
TP407	*E5
TP408	*D5
TP409	*D5
TP410	*D5
TP411	*D5
TP500	A3
TP600	D6
TP700	C8
TP701	C8
TP702	C8
TP703	C9
TP704	C8
TP1100	H8
TP1101	H8
TP1102	H8
TP1103	H8
TP1104	H8
TP1200	A8
TP1201	A8
TP1500	*D8
TP1501	*D8
TP1600	E9
TP1601	E9
TP1602	G7
TP1603	G8
TP1604	*F9
TP1800	*C1
TP1801	*C1
X400	*E2
X401	*F2
X1500	D8
X1502	D8
X1503	D8
X1504	E8
X1505	E8
X1506	D8



HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

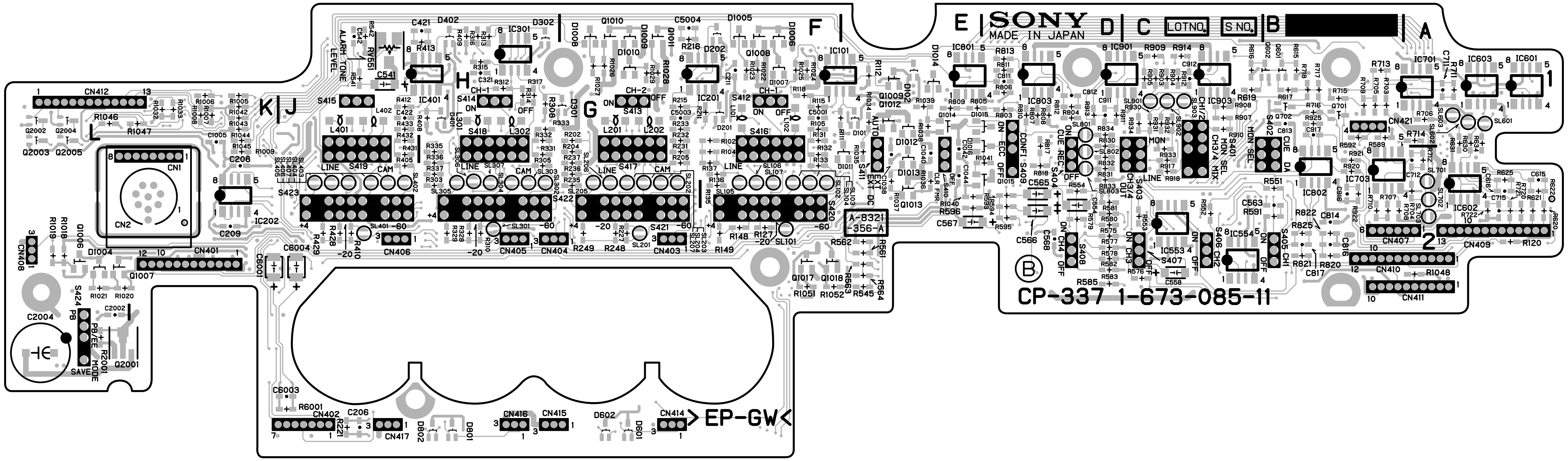
CP-337 -A SIDE-

SUFFIX: -11

CP-337(1-673-085-11)

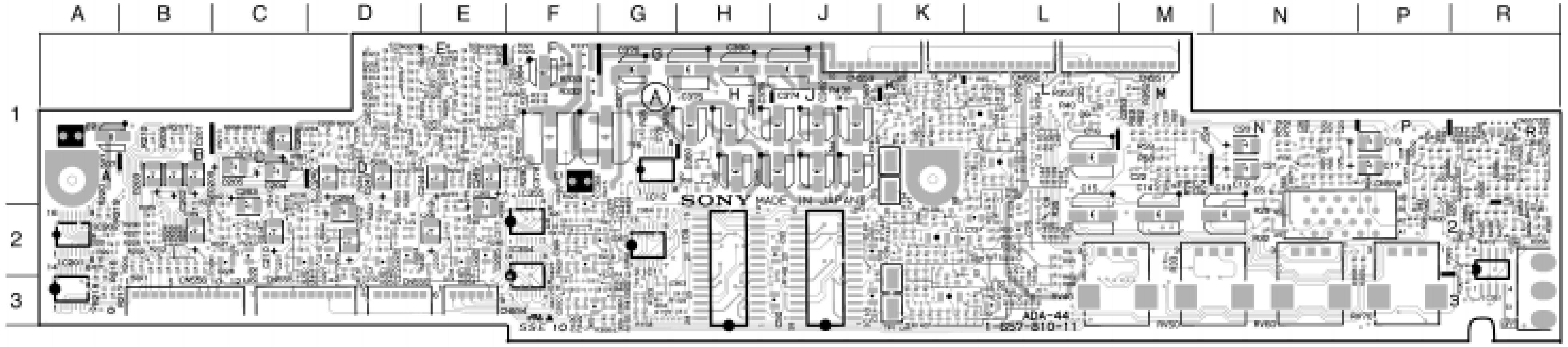
*:B SIDE

CN401	K2	D1011	*E2	L202	*G1	Q2003	*L1	SL107	*F2
CN402	J2	D1012	*E1	L203	J2	Q2004	*L1	SL201	*G2
CN403	G2	D1013	*E2	L204	J2	Q2005	*L1	SL202	*G2
CN404	H2	D1014	*E1	L301	*H1			SL203	*G2
CN405	H2	D1015	*D1	L302	*H1	RV551	*J1	SL204	*G2
CN406	J2	D1016	*D1	L401	*J1			SL205	*G2
CN407	B2			L402	*J1	S401	C2	SL206	*G2
CN408	L2	E551	J1	L6000	J2	S402	B2	SL207	*G2
CN409	A2			L6001	J2	S403	C2	SL301	*H2
CN410	B2	IC101	*F1			S404	D2	SL302	*H2
CN411	A2	IC201	*G1	Q601	*B1	S405	B2	SL303	*H2
CN412	L1	IC202	*K2	Q602	*B1	S406	C2	SL304	*H2
CN414	G2	IC301	*H1	Q701	*B1	S407	C2	SL305	*H2
CN415	H2	IC401	*J1	Q702	*B1	S408	D2	SL306	*H2
CN416	H2	IC551	E2	Q801	D1	S409	D2	SL307	*H2
CN417	J2	IC552	D2	Q802	D2	S410	E2	SL401	*J2
CN421	B1	IC553	*C2	Q901	C2	S411	E2	SL402	*J2
		IC554	*C2	Q902	C1	S412	F1	SL403	*J2
D101	*E1	IC601	*A1	Q1003	J1	S413	G1	SL404	*J2
D102	*E1	IC602	*A2	Q1005	K1	S414	H1	SL405	*J2
D201	*F1	IC603	*A1	Q1006	*L2	S415	J1	SL406	*J2
D202	*F1	IC701	*A1	Q1007	*L2	S416	F2	SL407	*J2
D301	*G1	IC703	*B2	Q1008	*F1	S417	G2	SL601	*A1
D302	*H1	IC801	*E1	Q1009	*E1	S418	H2	SL602	*A1
D401	*H1	IC802	*B2	Q1010	*G1	S419	J2	SL603	*A1
D402	*H1	IC803	*D1	Q1011	*G1	S420	F2	SL701	*A2
D601	*G2	IC901	*D1	Q1012	*E1	S421	G2	SL702	*A2
D602	*G2	IC903	*C1	Q1013	*E2	S422	H2	SL703	*A2
D801	*H2	IC1001	K1	Q1014	*E1	S423	J2	SL801	*D1
D802	*H2	IC1004	K1	Q1015	*D2	S424	L2	SL802	*D2
D1004	*L2	IC1007	L1	Q1016	J1			SL803	*D2
D1005	*F1	IC2001	L2	Q1017	*F2	SL101	*F2	SL901	*C1
D1006	*F1	IC6000	J2	Q1018	*F2	SL102	*F2	SL902	*C1
D1007	*F1			Q1019	G1	SL103	*F2	SL903	*C1
D1008	*G1	L101	*F1	Q1020	G1	SL104	*F2		
D1009	*G1	L102	*F1	Q2001	*L2	SL105	*F2	TP551	J1
D1010	*G1	L201	*G1	Q2002	*L1	SL106	*F2		


SONY
MADE IN JAPAN
CP-337 1-673-085-11
EP-GW
A-8321-356-A
A
B
C
D
E
F
G
H
J
K
L
1
2
LOT NO.
S NO.
CN412
CN401
CN2
CN1
CN402
CN417
CN416
CN415
CN414
CN406
CN405
CN404
CN403
CN407
CN409
CN410
CN411
CN421
CN408
IC101
IC201
IC202
IC301
IC401
IC601
IC602
IC603
IC701
IC703
IC801
IC802
IC803
IC901
IC903
IC553
IC554
S415
S414
S413
S412
S416
S417
S418
S419
S420
S421
S422
S423
S424
S401
S402
S403
S404
S405
S406
S407
S408
S409
S411
LINE
CAM
CH-1
CH-2
ON
OFF
AUTO
EXT
DC
ALARM TONE LEVEL
PB
PB/EE MODE
SAVE
MON
MON SEL
CUE
DA
CONFI
ECC
C2004

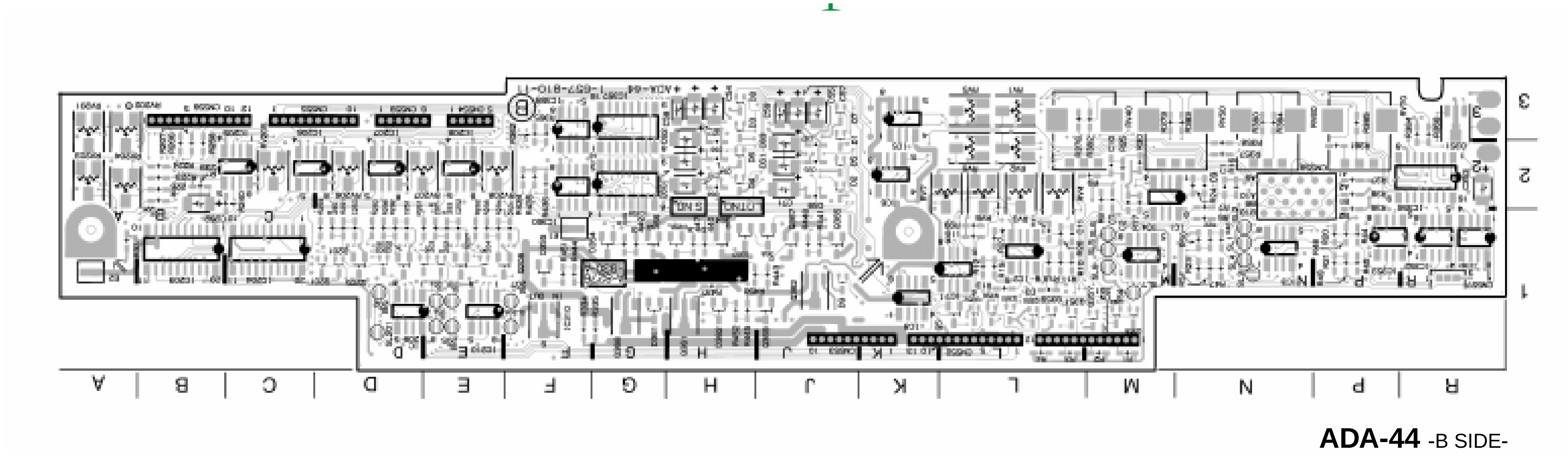
CP-337 -B SIDE-

SUFFIX: -11



HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

ADA-44 -A SIDE-
SUFFIX: -11

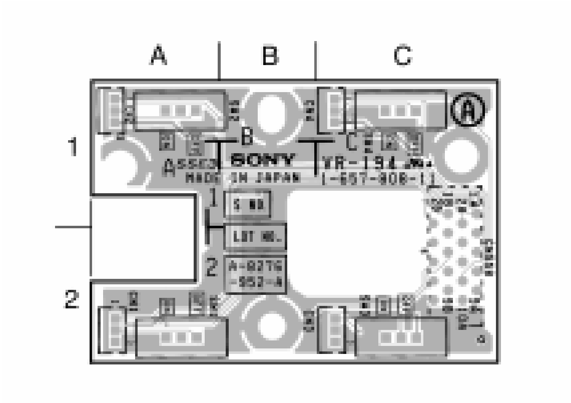


ADA-44 -B SIDE-
SUFFIX: -11

ADA-44(1-657-810-11)

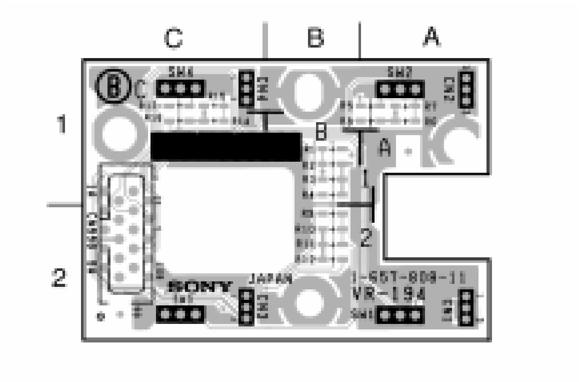
*:B SIDE

CN551	M1
CN552	L1
CN553	J1
CN554	E3
CN555	D3
CN556	B3
CN557	*R1
CN558	N2
CN559	D3
D1	*J2
D2	*J2
D3	*H3
D4	*H2
D5	*J2
D6	*H2
D7	*J3
D8	*H3
D9	*J1
D201	*D1
D202	*E1
D351	*R3
D354	*G1
D355	*F1
D356	*H1
D357	*H1
D358	*J1
D359	H1
D360	H1
D361	*G1
D362	*H1
E1	F1
E2	A1
IC1	*N2
IC2	*L1
IC3	*N1
IC4	*M1
IC5	*K3
IC6	*K2
IC7	*L1
IC8	*K1
IC9	H3
IC10	J3
IC11	G2
IC12	G1
IC201	A3
IC202	A2
IC203	*B1
IC204	*C1
IC205	*C2
IC206	*D2
IC207	*D2
IC208	*E2
IC209	*D1
IC210	*E1
IC310	*F1
IC351	R3
IC352	*R1
IC353	*P1
IC354	F3
IC355	F2
IC356	*R2
IC357	*G2
IC358	*G2
IC359	*F2
IC360	*F2
IC361	*R1
Q1	K1
Q2	K2
Q3	K2
Q4	L1
Q5	*L1
Q201	*D1
Q202	*D1
Q203	*E1
Q204	*E1
Q205	*D1
Q206	*D1
Q207	*E1
Q208	*F1
Q351	*L1
Q352	*L1
Q353	L1
Q354	*M1
Q355	*L1
Q356	*L1
Q357	*M1
Q358	*M1
Q359	*L1
Q360	*L1
Q361	*H1
Q362	*J1
Q364	*H1
Q365	*J1
Q366	*G1
Q367	*J1
Q368	*G1
Q369	*J1
RV1	*L3
RV2	*L2
RV3	*L2
RV4	*L2
RV5	*L3
RV6	*L2
RV7	*L2
RV8	*L2
RV40	L3
RV50	N3
RV60	N3
RV70	P3
RV201	*A3
RV202	*A3
RV203	*A2
RV204	*A2
RV205	*C2
RV206	*D2
RV207	*E2
RV208	*E2
S1	R3
T1	K3
T2	K3
T3	K1
T4	K1


A
B
C
1
2
SONY
VR-194
1-657-808-11
A-8276
-952-A

VR-194 -A SIDE-
SUFFIX: -11

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

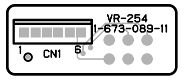

C
B
A
1
2
SONY
JAPAN
1-657-808-11
VR-194

VR-194 -B SIDE-
SUFFIX: -11

VR-194(1-657-808-11)

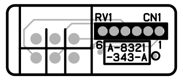
*:B SIDE

CN1	A2
CN2	A1
CN3	C2
CN4	C1
CN558	*C2
SW1	A2
SW2	A1
SW3	C2
SW4	C1

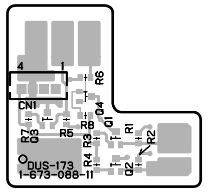

VR-254
1-673-089-11
CN1

VR-254 -A SIDE-
SUFFIX: -11

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

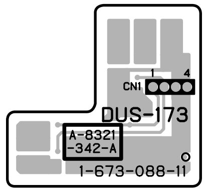

RV1
CN1
A-8321
-343-A

VR-254 -B SIDE-
SUFFIX: -11


CN1
DUS-173
1-673-088-11

DUS-173 -A SIDE-
SUFFIX: -11

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

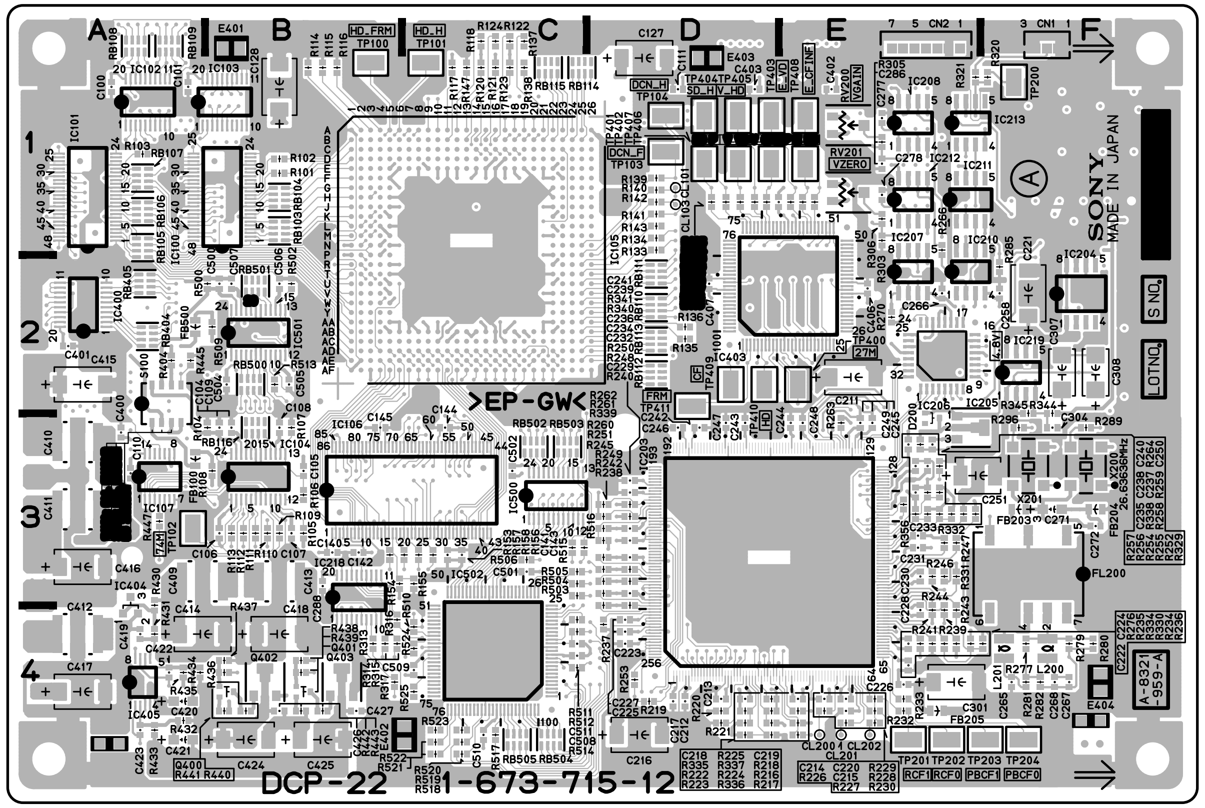

CN1
DUS-173
A-8321
-342-A
1-673-088-11

DUS-173 -B SIDE-
SUFFIX: -11

VR-206 -A SIDE-
SUFFIX: -11

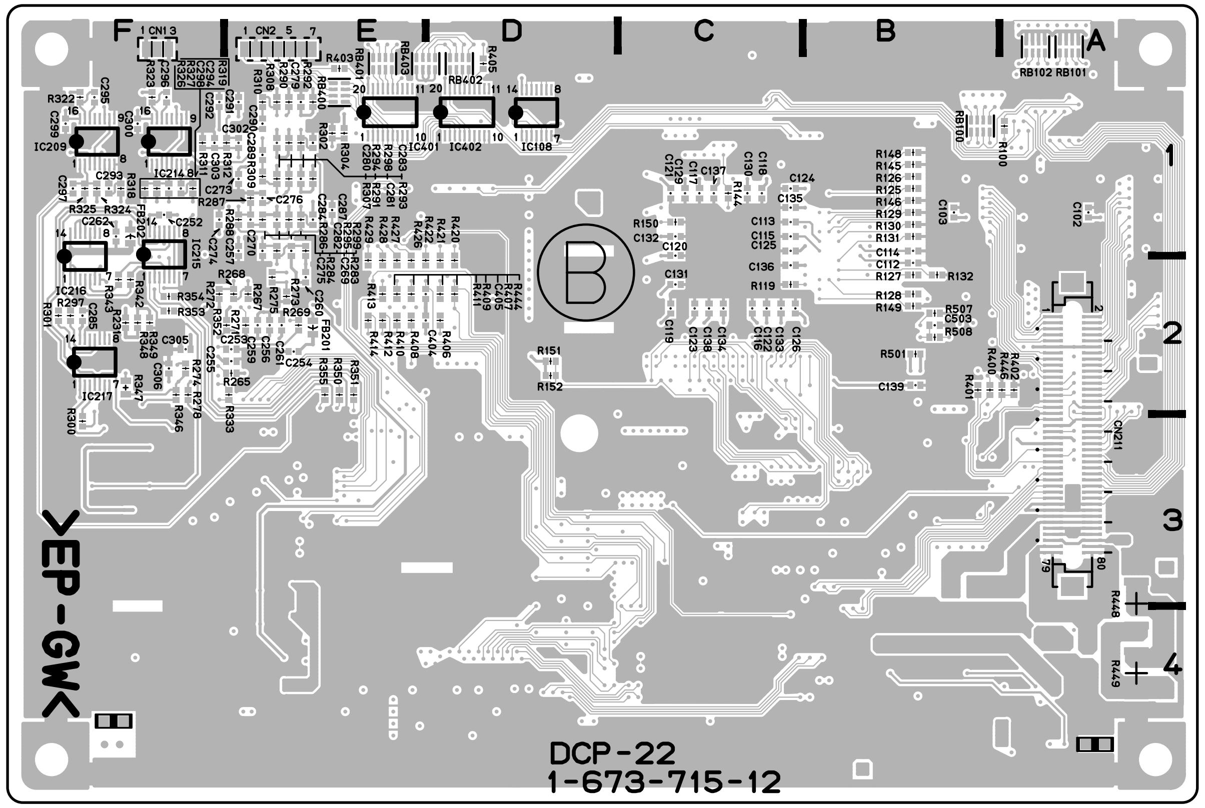
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

VR-206 -B SIDE-
SUFFIX: -11



HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

DCP-22 -A SIDE-
SUFFIX: -12

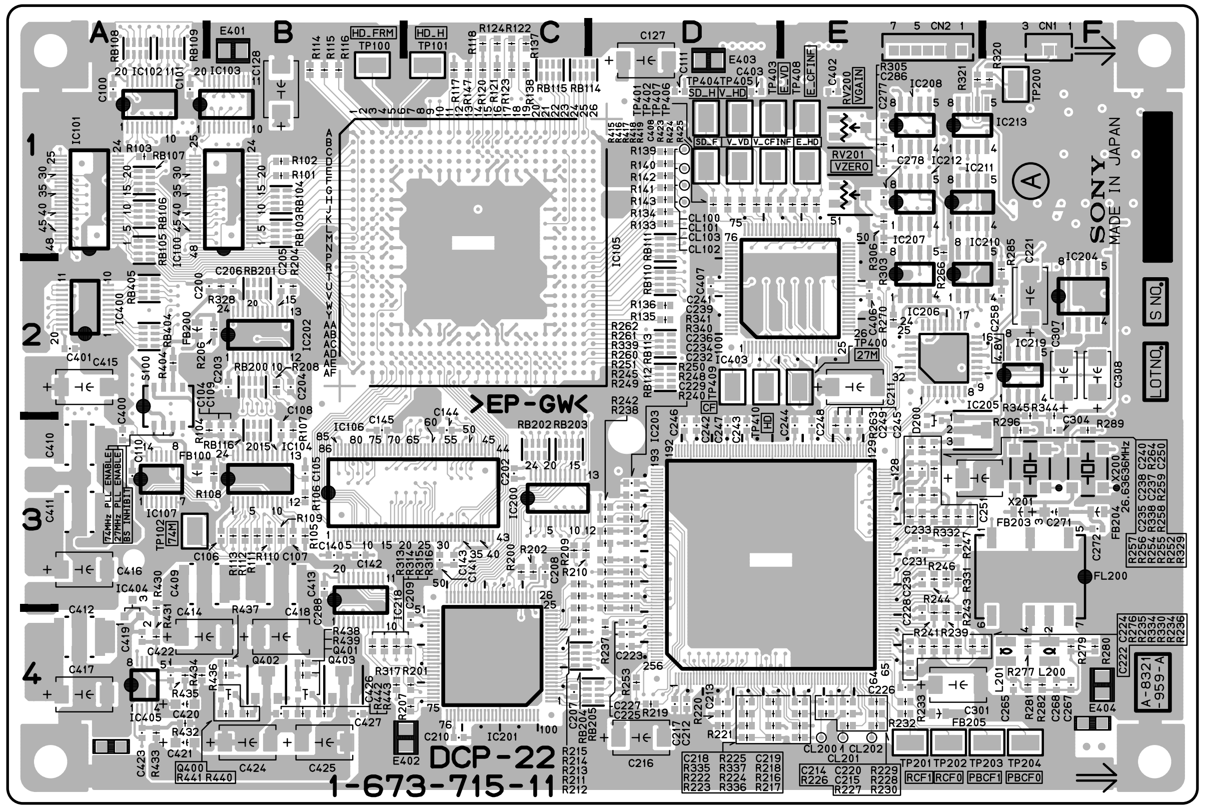


DCP-22 -B SIDE-
SUFFIX: -12

DCP-22(1-673-715-12)

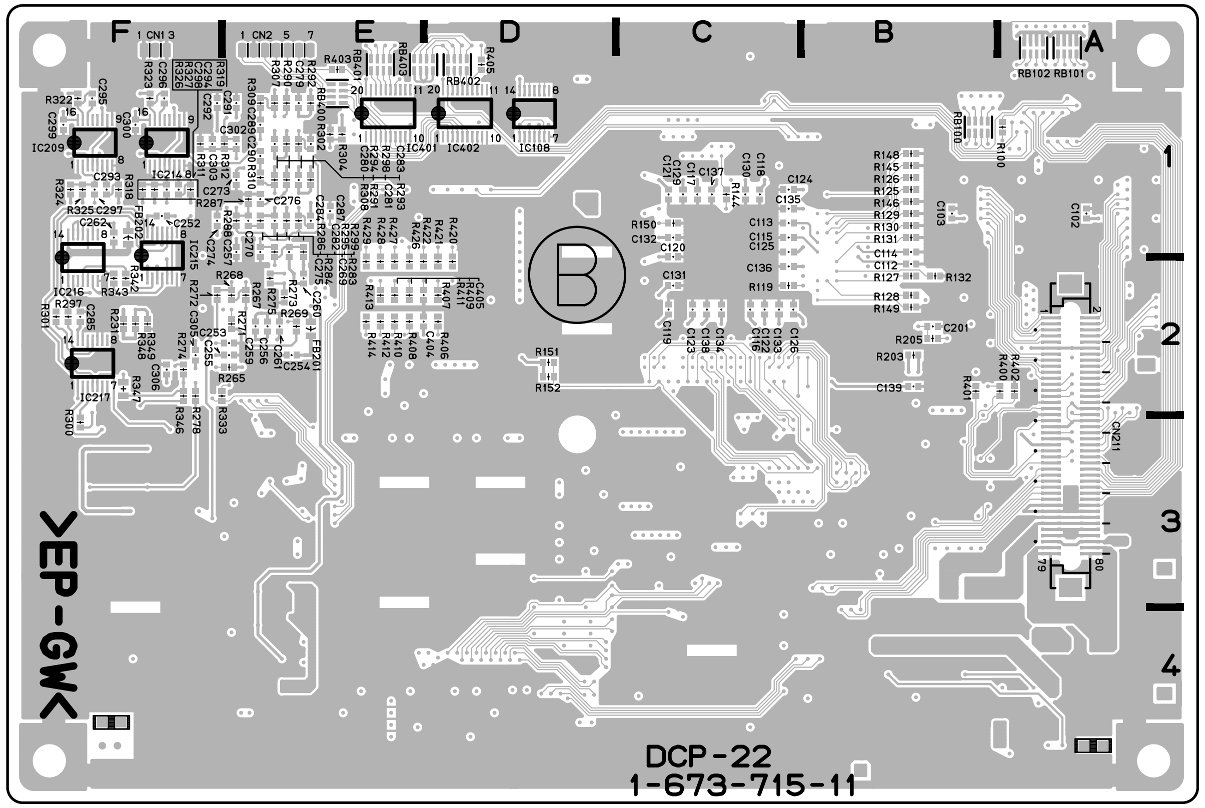
*:B SIDE

CL101	D1	IC203	D3	RB101	*A1	TP102	A3
CL103	D1	IC204	F2	RB102	*A1	TP103	D1
CL200	E4	IC205	E3	RB103	B1	TP104	D1
CL201	E4	IC206	E2	RB104	B1	TP200	F1
CL202	E4	IC207	E2	RB105	A1	TP201	E4
		IC208	E1	RB106	A1	TP202	E4
CN1	F1	IC209	*F1	RB107	A1	TP203	F4
CN2	E1	IC210	E2	RB108	A1	TP204	F4
CN211	*A3	IC211	E1	RB109	A1	TP400	E2
		IC212	E1	RB110	D2	TP401	D1
D200	E3	IC213	E1	RB111	D2	TP402	D1
		IC214	*F1	RB112	D2	TP403	D1
E401	B1	IC215	*F2	RB113	D2	TP404	D1
E402	C4	IC216	*F2	RB114	C1	TP405	D1
E403	D1	IC217	*F2	RB115	C1	TP406	E1
E404	F4	IC218	B4	RB116	B3	TP407	D1
		IC219	F2	RB400	*E1	TP408	E1
FB100	A3	IC400	A2	RB401	*E1	TP409	D2
FB201	*E2	IC401	*E1	RB402	*D1	TP410	D2
FB202	*F1	IC402	*D1	RB403	*D1	TP411	D2
FB203	F3	IC403	E2	RB404	A2		
FB204	F3	IC404	A3	RB405	A2	X200	F3
FB205	E4	IC405	A4	RB500	B2	X201	F3
FB500	A2	IC500	C3	RB501	B2		
		IC501	B2	RB502	C3		
FL200	F3	IC502	C4	RB503	C3		
				RB504	C4		
IC100	B1	L200	F4	RB505	C4		
IC101	A1	L201	F4				
IC102	A1			RV200	E1		
IC103	A1	Q400	B4	RV201	E1		
IC104	B3	Q401	B4				
IC105	C1	Q402	B4	S100	A2		
IC106	B3	Q403	B4				
IC107	A3			TP100	B1		
IC108	*D1	RB100	*B1	TP101	C1		



HDW-250 (J) : S/N 30001 through 30050

DCP-22 -A SIDE-
SUFFIX: -11

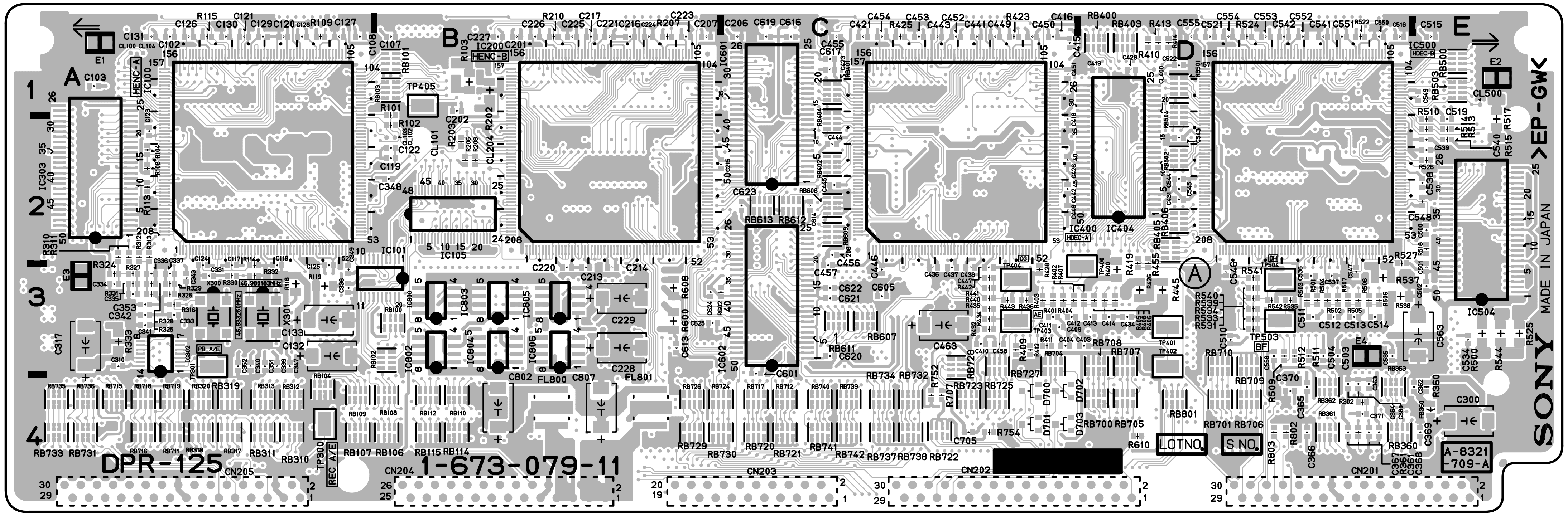


DCP-22 -B SIDE-
SUFFIX: -11

DCP-22(1-673-715-11)

*:B SIDE

CL100	D1	IC108	*D1	RB103	B1	TP400	E2
CL101	D1	IC201	C4	RB104	B1	TP401	D1
CL102	D1	IC203	D3	RB105	A1	TP402	D1
CL103	D1	IC204	F2	RB106	A1	TP403	D1
CL200	E4	IC205	E3	RB107	A1	TP404	D1
CL201	E4	IC206	E2	RB108	A1	TP405	D1
CL202	E4	IC207	E2	RB109	A1	TP406	E1
		IC208	E1	RB110	D2	TP407	D1
CN1	F1	IC209	*F1	RB111	D1	TP408	E1
CN2	E1	IC210	E2	RB112	D2	TP409	D2
CN211	*A3	IC211	E1	RB113	D2	TP410	D2
		IC212	E1	RB114	C1		
D200	E3	IC213	E1	RB115	C1	X200	F3
		IC214	*F1	RB116	B3	X201	F3
E401	B1	IC215	*F2	RB204	C4		
E402	C4	IC216	*F2	RB205	D4		
E403	D1	IC217	*F2	RB400	*E1		
E404	F4	IC218	B4	RB401	*E1		
		IC219	F2	RB402	*D1		
FB100	A3	IC400	A2	RB403	*D1		
FB201	*E2	IC401	*E1	RB404	A2		
FB202	*F1	IC402	*D1	RB405	A2		
FB203	F3	IC403	E2				
FB204	F3	IC404	A3	RV200	E1		
FB205	E4	IC405	A4	RV201	E1		
FL200	F3	L200	F4	S100	A2		
		L201	F4				
IC100	B1			TP100	B1		
IC101	A1	Q400	B4	TP101	C1		
IC102	A1	Q401	B4	TP102	A3		
IC103	A1	Q402	B4	TP200	F1		
IC104	B3	Q403	B4	TP201	E4		
IC105	C1	RB100	*B1	TP202	E4		
IC106	B3	RB101	*A1	TP203	F4		
IC107	A3	RB102	*A1	TP204	F4		



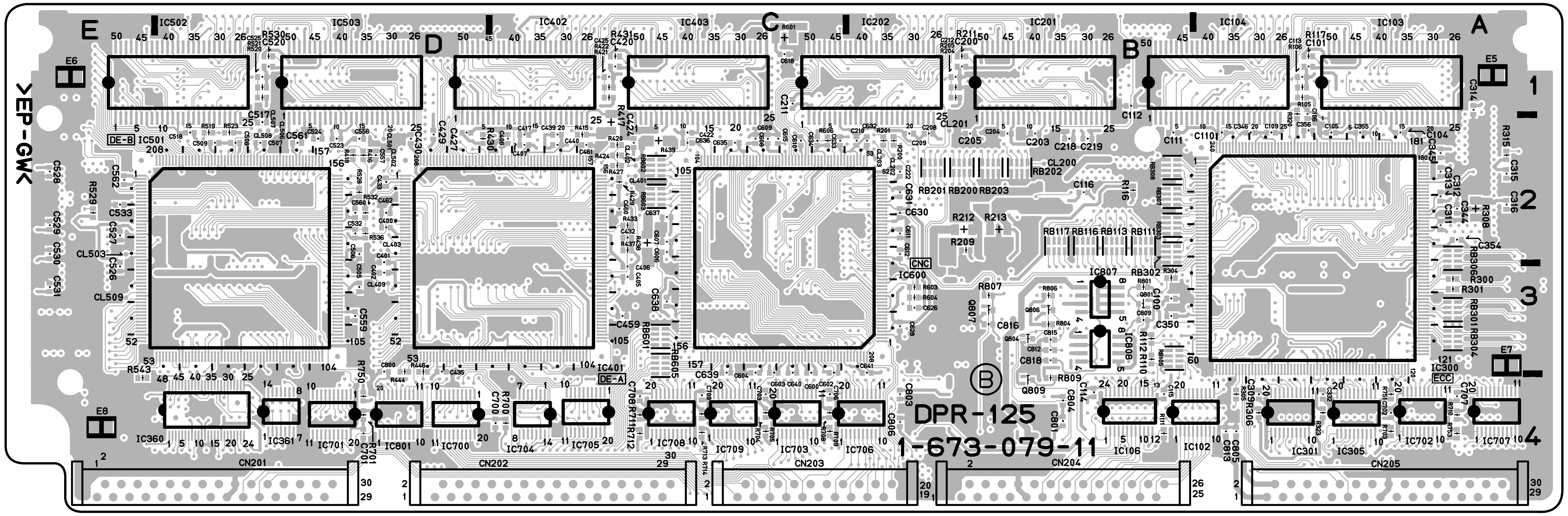
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

DPR-125 -A SIDE-
SUFFIX: -11

DPR-125(1-673-079-11)

*:B SIDE

CL100	A1
CL101	B2
CL102	B2
CL103	B2
CL104	A1
CL200	*B2
CL201	*B2
CL202	*B2
CL203	*B2
CL204	B2
CL400	D1
CL401	*C2
CL402	C2
CL403	*D2
CL409	*D3
CL500	E1
CL501	*D2
CL502	D2
CL503	E2
CL506	*D2
CL507	D2
CL508	D2
CL509	E3
CN201	*D4
CN202	*C4
CN203	*C4
CN204	*B4
CN205	*A4
D700	C4
D701	C4
D702	C4
D703	C4
E1	A1
E2	E1
E3	A3
E4	D3
E5	*A1
E6	*E1
E7	*A3
E8	*E4
FB360	E4
FL800	B4
FL801	B4
IC100	A2
IC101	B2
IC102	*B4
IC103	*A2
IC104	*B2
IC105	B2
IC106	*B4
IC200	B2
IC201	*B2
IC202	*C2
IC300	*A2
IC301	*A4
IC302	A3
IC303	A2
IC305	*A4
IC360	*D4
IC361	*D4
IC400	C2
IC401	*C2
IC402	*D2
IC403	*C2
IC404	D2
IC500	D2
IC501	*D2
IC502	*E2
IC503	*D2
IC504	E3
IC600	*C2
IC601	C2
IC602	C3
IC700	*D4
IC701	*D4
IC702	*A4
IC703	*C4
IC704	*C4
IC705	*C4
IC706	*C4
IC707	*A4
IC708	*C4
IC709	*C4
IC800	B3
IC801	*D4
IC802	B3
IC803	B3
IC804	B3
IC805	B3
IC806	B3
IC807	*B3
IC808	*B3
Q801	*B3
Q804	*B3
Q806	*B3
Q807	*B3
Q809	*B4
RB100	B3
RB101	B1
RB102	B3
RB103	B1
RB104	A4
RB105	*B3
RB106	B4
RB107	A4
RB108	B4
RB109	A4
RB110	B4
RB111	*B2
RB112	B4
RB113	*B2
RB114	B4
RB115	B4
RB116	*B2
RB117	*B2
RB200	*B2
RB201	*B2
RB202	*B2
RB203	*B2
RB301	*A3
RB302	*B2
RB303	*B2
RB304	*A3
RB306	*A2
RB307	*B2
RB308	*B2
RB310	A4
RB311	A4
RB312	A4
RB313	A4
RB317	A4
RB318	A4
RB319	A4
RB320	A4
RB360	D4
RB361	D4
RB362	D4
RB363	D4
RB400	D1
RB401	C1
RB402	C2
RB403	D1
RB404	C2
RB405	D2
RB406	D2
RB500	E1
RB501	D1
RB502	D2
RB503	E1
RB504	D1
RB601	*C3
RB602	*C2
RB603	*C2
RB605	*C3
RB607	C3
RB608	C2
RB609	C2
RB611	C3
RB612	C2
RB613	C2
RB700	D4
RB701	D4
RB704	C3
RB705	D4
RB706	D4
RB707	D3
RB708	D3
RB709	D3
RB710	D3
RB711	A4
RB712	C4
RB715	A4
RB716	A4
RB717	C4
RB718	A4
RB719	A4
RB720	C4
RB721	C4
RB722	C4
RB723	C4
RB724	C4
RB725	C4
RB726	B4
RB727	C3
RB728	C3
RB729	B4
RB730	C4
RB731	A4
RB732	C4
RB733	A4
RB734	C4
RB735	A4
RB736	A4
RB737	C4
RB738	C4
RB739	C4
RB740	C4
RB741	C4
RB742	C4
RB801	D4
TP300	A4
TP301	A3
TP400	D3
TP401	D3
TP402	D3
TP403	C3
TP404	C3
TP405	B1
TP503	D3
TP504	D3
X300	A3
X301	A3

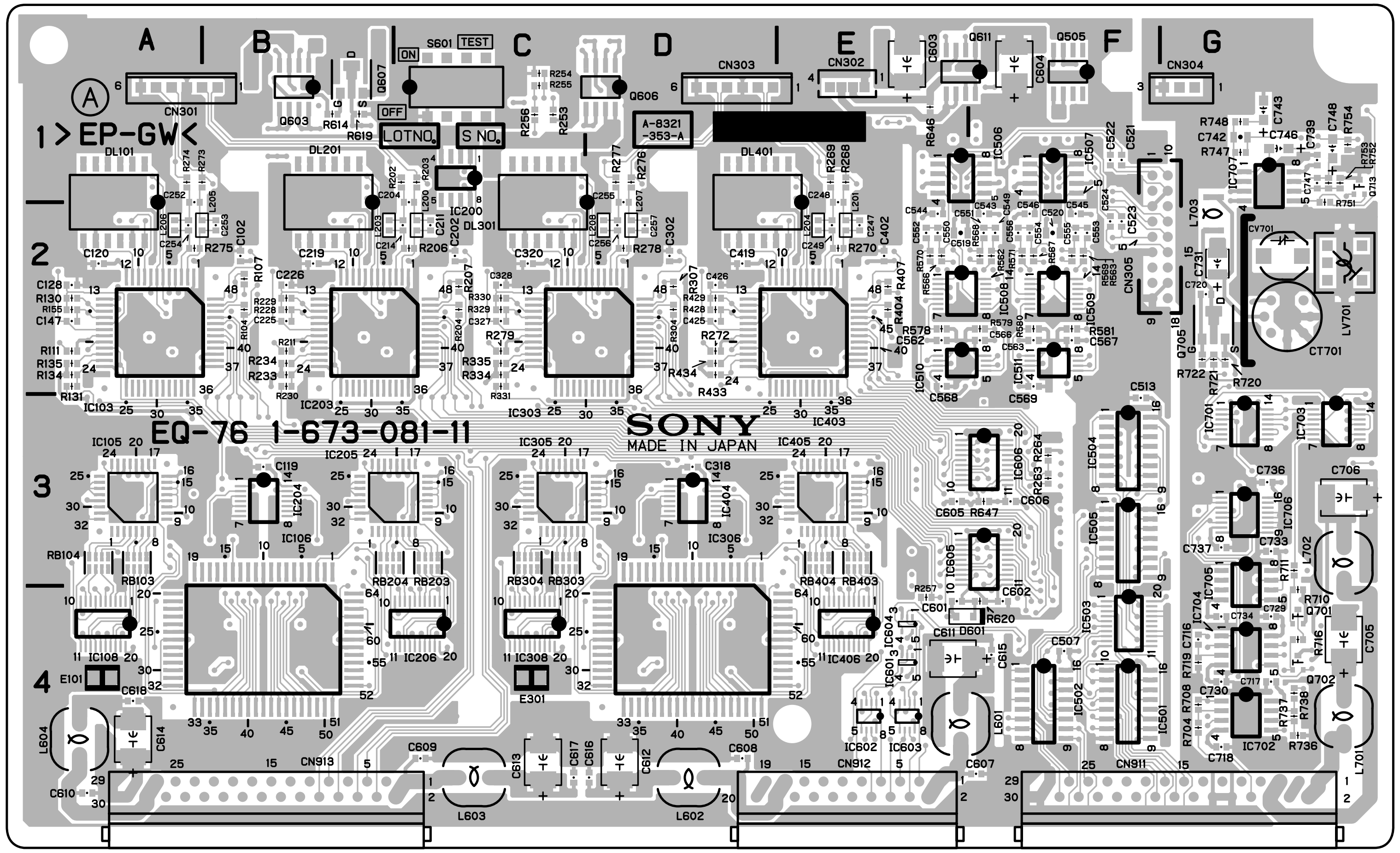

E
D
C
B
A
IC502
IC503
IC402
IC403
IC202
IC201
IC104
IC103
IC501
IC401
IC600
IC300
IC807
IC806
IC360
IC361
IC701
IC801
IC700
IC704
IC705
IC708
IC709
IC703
IC706
IC106
IC102
IC301
IC305
IC702
IC707
DE-B
DE-A
CNC
ECC
E5
E6
E7
E8
1
2
3
4
>EP-GW<
DPR-125
1-673-079-11
CN201
CN202
CN203
CN204
CN205

DPR-125 -B SIDE-
SUFFIX: -11

EQ-76(1-673-081-11)

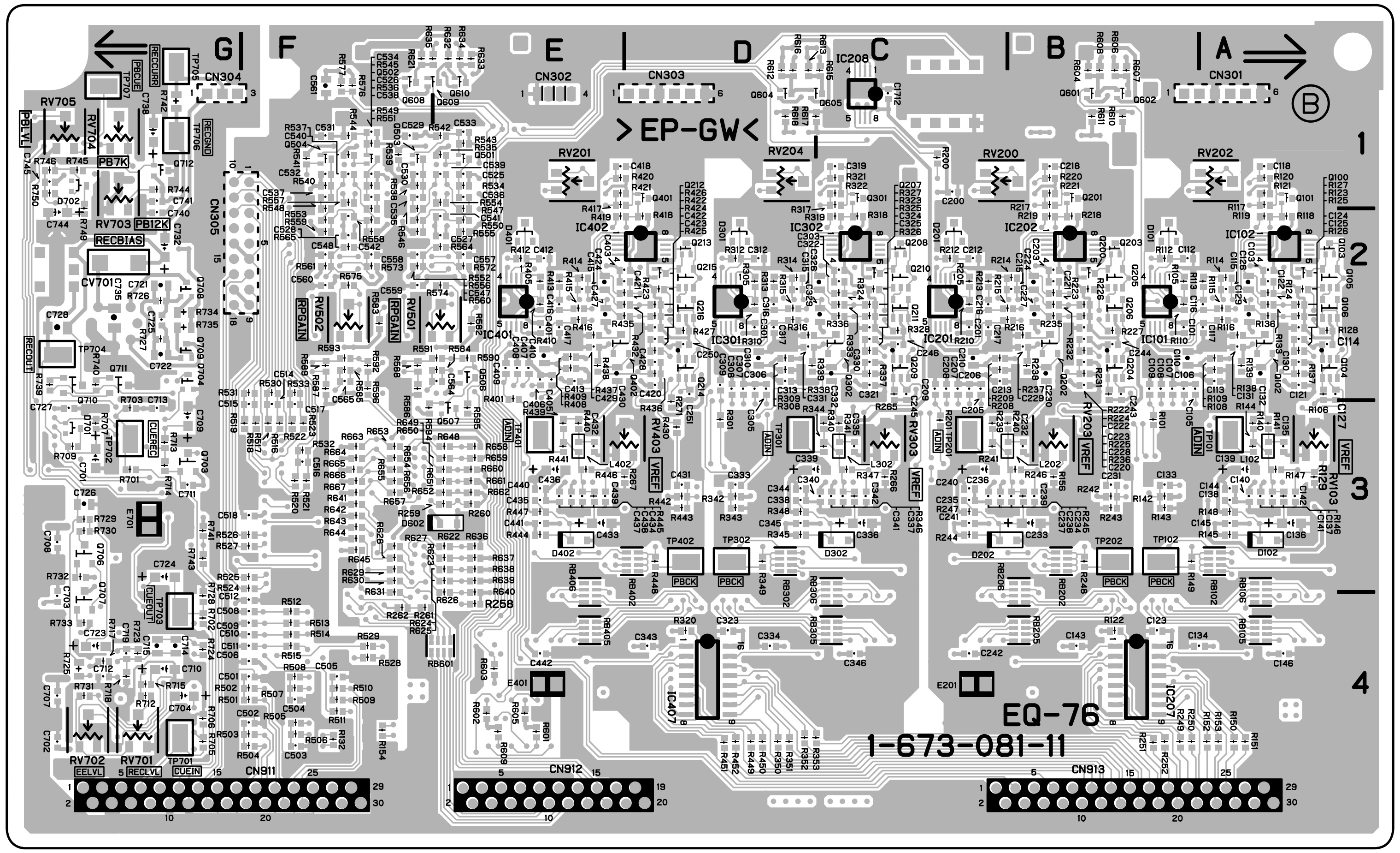
*:B SIDE

CN301	A1
CN302	E1
CN303	D1
CN304	G1
CN305	F2
CN911	G4
CN912	E4
CN913	B4
CT701	G2
CV701	G2
D101	*B2
D102	*A3
D201	*C2
D202	*B3
D301	*D2
D302	*C3
D401	*E2
D402	*E3
D601	E4
D602	*E3
D701	*G3
D702	*G1
DL101	A1
DL201	B1
DL301	C1
DL401	D1
E101	A4
E201	*C4
E301	C4
E401	*E4
E701	*G3
IC101	*B2
IC102	*A2
IC103	A2
IC105	A3
IC106	B4
IC108	A4
IC200	C1
IC201	*C2
IC202	*B2
IC203	B2
IC204	B3
IC205	B3
IC206	C4
IC207	*B4
IC208	*C1
IC301	*D2
IC302	*C2
IC303	D2
IC305	C3
IC306	D4
IC308	C4
IC401	*E2
IC402	*E2
IC403	E2
IC404	D3
IC405	E3
IC406	E4
IC407	*D4
IC501	F4
IC502	F4
IC503	F4
IC504	F3
IC505	F3
IC506	E1
IC507	F1
IC508	E2
IC509	F2
IC510	E2
IC511	F2
IC601	E4
IC602	E4
IC603	E4
IC604	E4
IC605	E3
IC606	E3
IC701	G3
IC702	G4
IC703	G3
IC704	G4
IC705	G3
IC706	G3
IC707	G1
L102	*A3
L200	C2
L201	E2
L202	*B3
L203	B2
L204	E2
L205	A2
L206	A2
L207	D2
L208	D2
L302	*C3
L402	*E3
L601	E4
L602	D4
L603	C4
L604	A4
L701	G4
L702	G3
L703	G2
LV701	G2
Q100	*A2
Q101	*A1
Q102	*A2
Q103	*A2
Q104	*A2
Q105	*A2
Q106	*A2
Q200	*B2
Q201	*B1
Q202	*B2
Q203	*B2
Q204	*B2
Q205	*B2
Q206	*B2
Q207	*C2
Q208	*C2
Q209	*C2
Q210	*C2
Q211	*C2
Q212	*D2
Q213	*D2
Q214	*D2
Q215	*D2
Q216	*D2
Q301	*C1
Q302	*C2
Q401	*D1
Q402	*E2
Q501	*E1
Q502	*F1
Q503	*F1
Q504	*F1
Q505	F1
Q506	*E2
Q507	*E3
Q601	*B1
Q602	*B1
Q603	B1
Q604	*D1
Q605	*C1
Q606	D1
Q607	B1
Q608	*F1
Q609	*E1
Q610	*E1
Q611	E1
Q701	G4
Q702	G4
Q703	*G3
Q704	*G2
Q705	G2
Q706	*G3
Q707	*G4
Q708	*G2
Q709	*G2
Q710	*G2
Q711	*G2
Q712	*G1
Q713	G1
RB102	*A3
RB103	A3
RB104	A3
RB105	*A4
RB106	*A3
RB202	*B3
RB203	C3
RB204	B3
RB205	*B4
RB206	*B3
RB302	*D3
RB303	C3
RB304	C3
RB305	*C4
RB306	*C3
RB402	*D3
RB403	E3
RB404	E3
RB405	*E4
RB406	*E3
RB601	*E4
RV103	*A3
RV200	*C1
RV201	*E1
RV202	*A1
RV203	*B3
RV204	*D1
RV303	*C3
RV403	*D3
RV501	*E2
RV502	*F2
RV701	*G4
RV702	*G4
RV703	*G1
RV704	*G1
RV705	*G1
S601	C1
TP101	*A3
TP102	*B3
TP201	*C3
TP202	*B3
TP301	*D3
TP302	*D3
TP401	*E3
TP402	*D3
TP701	*G4
TP702	*G3
TP703	*G4
TP704	*G2
TP705	*G1
TP706	*G1
TP707	*G1

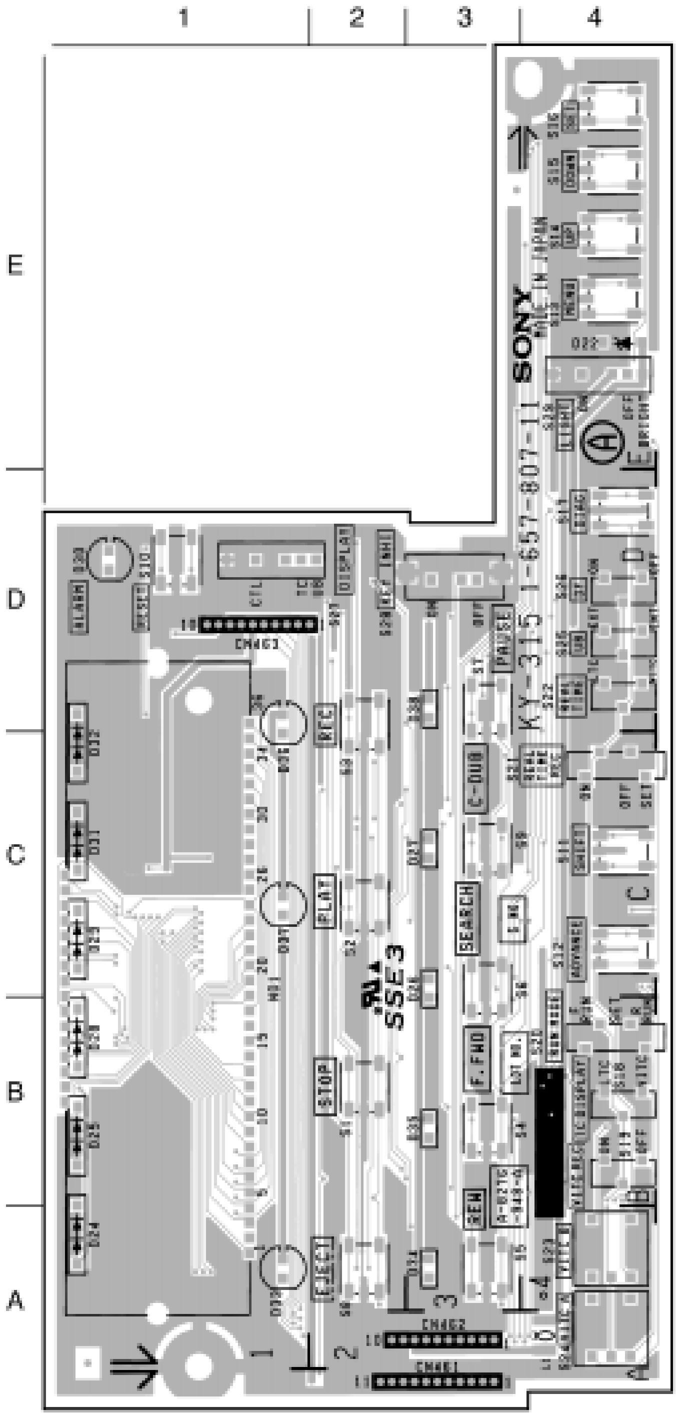

A
B
C
D
E
F
G
1
2
3
4
1 > EP-GW <
S601
TEST
ON
OFF
LOTNO.
S NO.
A-8321
-353-A
CN301
CN302
CN303
CN304
EQ-76 1-673-081-11
SONY
MADE IN JAPAN
CN913
CN912
CN911
DL101
DL201
DL301
DL401
IC103
IC203
IC303
IC105
IC205
IC305
IC405
IC108
IC206
IC308
IC406
CT701
LV701
L601
L602
L603
L604
L701
L702

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

EQ-76 -A SIDE-
SUFFIX: -11

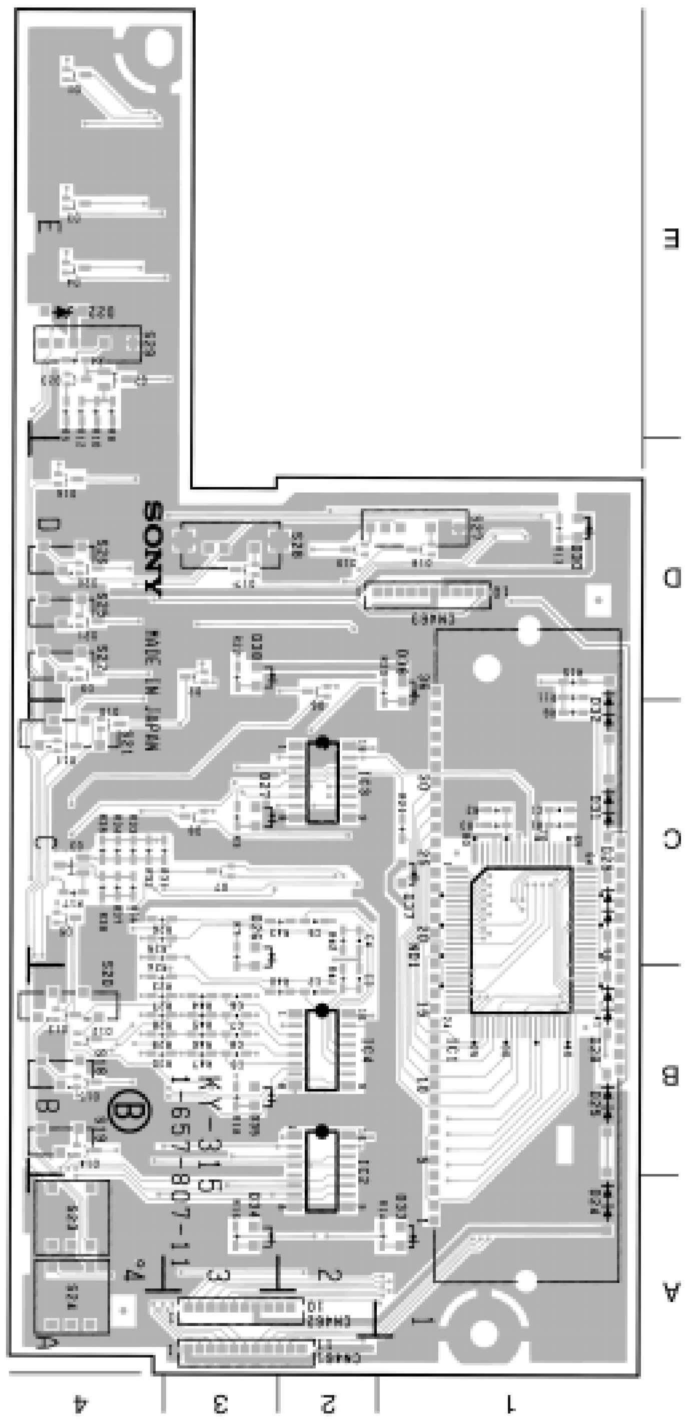

G
F
E
D
C
B
A
1
2
3
4
>EP-GW<
EQ-76
1-673-081-11
CN304
CN305
CN302
CN303
CN301
CN911
CN912
CN913
IC101
IC102
IC201
IC202
IC207
IC208
IC301
IC302
IC401
IC402
IC407
RV200
RV201
RV202
RV204
RV103
RV203
RV303
RV403
RV501
RV502
RV701
RV702
RV703
RV704
RV705
CV701
TP102
TP202
TP302
TP402
TP701
TP704
PBCK
VREF
ADJN
RPGAIN
RECBIAS
PB12K
PB7K
PBLVL
EELVL
RECLVL
SUBLIN

EQ-76 -B SIDE-
SUFFIX: -11


1
2
3
4
E
D
C
B
A
SONY
MADE IN JAPAN
KY-315 1-657-807-11
DISPLAY
KEY INH
PAUSE
C-DUB
SEARCH
PLAY
REC
STOP
F.FWD
REW
EJECT
SHIFT
ADVANCE
CN461
CN462
CN463

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

KY-315 -A SIDE-
SUFFIX: -11


1
2
3
4
E
D
C
B
A
SONY
MADE IN JAPAN
KY-315
1-657-807-11
CN461
CN462
CN463
IC1
IC2
IC3
IC4

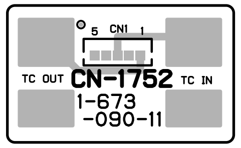
KY-315 -B SIDE-
SUFFIX: -11

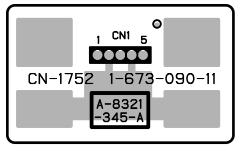
KY-315(1-657-807-11)

*:B SIDE

CN461	*A3
CN462	*A3
CN463	*D1
D1	*E4
D2	*D3
D3	*E4
D4	*E4
D5	*C4
D6	*D2
D7	*C3
D8	*C3
D9	*D4
D10	*C4
D11	*C4
D12	*B4
D13	*B4
D14	*B4
D15	*B4
D16	*D4
D17	*D3
D18	*D1
D19	*D2
D20	*D4
D21	*D4
D22	E4
D23	*E4
D24	A1
D25	B1
D26	C3
D27	C3
D28	B1
D29	C1
D30	D1
D31	C1
D32	C1
D33	A1
D34	A3
D35	B3
D36	D1
D37	C1
D38	D3
IC1	*C1
IC2	*B2
IC3	*C2
IC4	*B2
L1	A4
ND1	C1
Q2	*E4
Q3	*C4
S1	B2
S2	C2
S3	D2
S4	B3
S5	A3
S6	C3
S7	D3
S8	A2
S9	C3
S10	D1
S11	C4
S12	C4
S13	E4
S14	E4
S15	E4
S16	E4
S17	D4
S18	B4
S19	B4
S20	B4
S21	C4
S22	D4
S23	A4
S24	A4
S25	D4
S26	D4
S27	D1
S28	D3
S29	E4

CN-1752 -A SIDE-
SUFFIX: -11


5
CN1
1
TC OUT
CN-1752
TC IN
1-673
-090-11


1
CN1
5
CN-1752 1-673-090-11
A-8321
-345-A

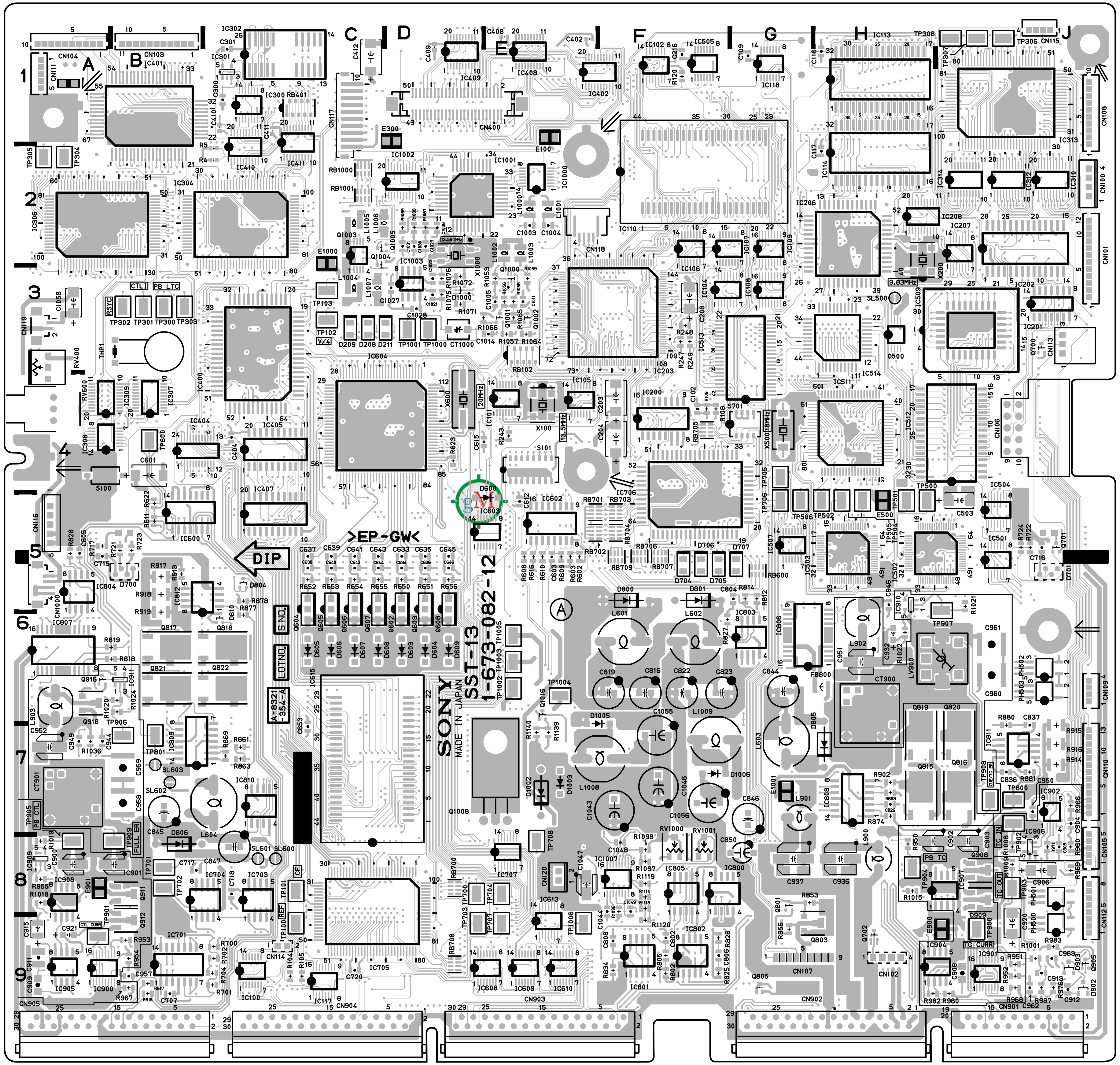
CN-1752 -B SIDE-
SUFFIX: -11

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

SST-13(1-673-082-12)

*:B SIDE

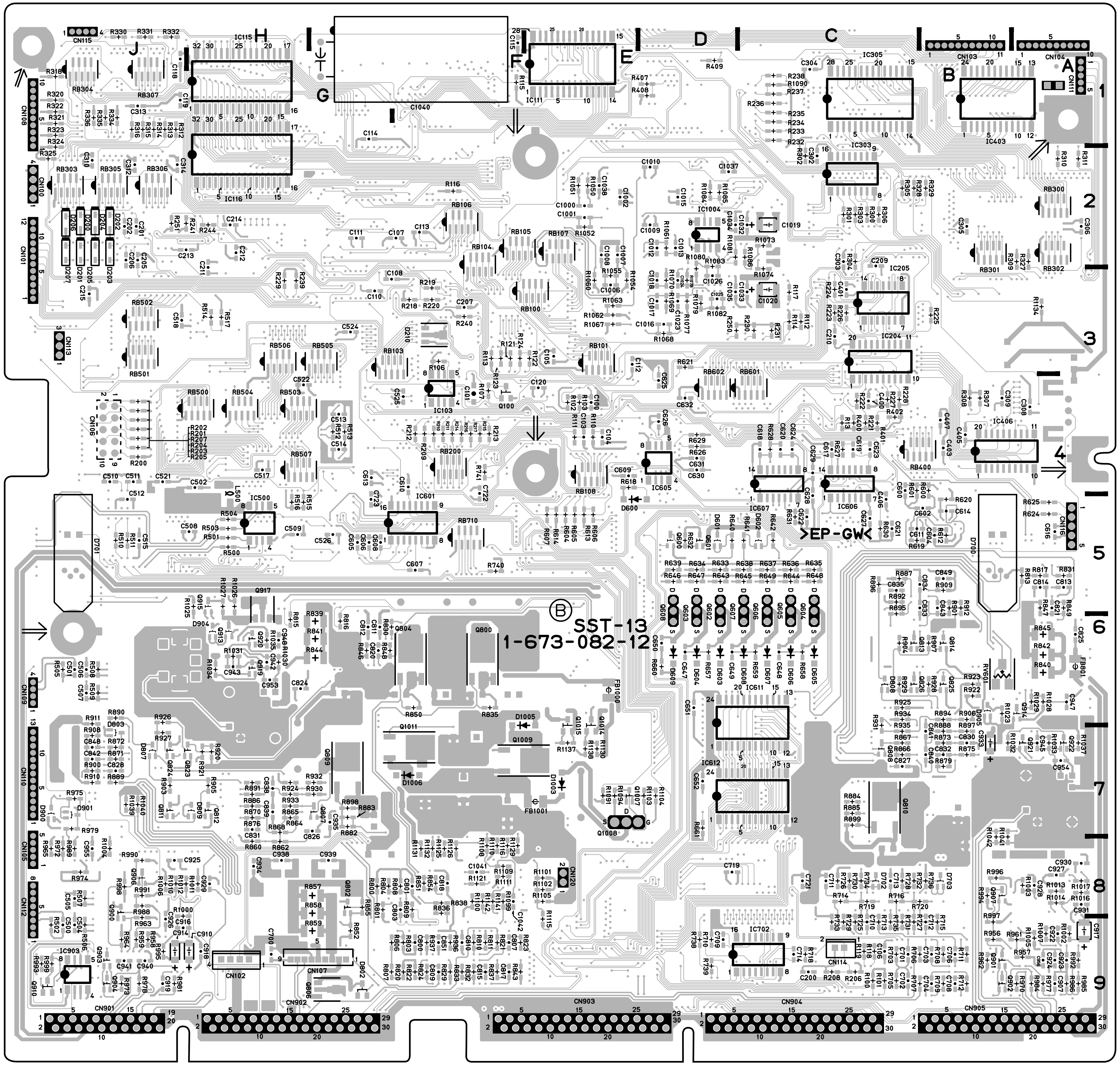
CN100	J2	FB800	H6	IC802	F9
CN101	J2	FB801	*A6	IC803	G6
CN102	*H9	FB1000	*E6	IC804	A5
CN103	B1	FB1001	*E7	IC805	F8
CN104	A1			IC806	H6
CN105	J8	IC100	C9	IC807	A6
CN106	J4	IC101	E4	IC808	H7
CN107	*G9	IC102	F1	IC809	C7
CN108	J1	IC103	*F4	IC810	C7
CN109	J6	IC104	F3	IC811	J7
CN110	J7	IC105	E4	IC812	C5
CN111	A1	IC106	F2	IC900	A9
CN112	J8	IC107	F2	IC901	J9
CN113	J3	IC108	G3	IC902	J7
CN114	*C9	IC109	G2	IC903	*J9
CN115	J1	IC110	F2	IC904	H9
CN116	A5	IC111	*E1	IC905	A9
CN117	C1	IC113	H1	IC906	J8
CN118	E2	IC114	H2	IC907	J8
CN119	A3	IC115	*H1	IC908	A9
CN120	E8	IC116	*H2	IC909	A8
CN400	D1	IC117	C9	IC910	H5
CN901	J9	IC118	G1	IC911	B6
CN902	H9	IC200	F4	IC1000	E2
CN903	E9	IC201	J3	IC1001	D2
CN904	C9	IC202	J3	IC1002	D2
CN905	B9	IC203	F3	IC1003	D3
CN1000	A5	IC204	*C4	IC1004	*D2
		IC205	*C3	IC1007	F8
CT900	H6	IC206	H2		
CT901	A7	IC207	J3	L500	*H4
CT1000	D3	IC208	H2	L601	F6
		IC300	C1	L602	F6
D200	*J2	IC301	C1	L603	G7
D201	*J2	IC302	C1	L604	C7
D202	*J2	IC303	*C2	L900	H8
D203	*J2	IC304	C2	L901	G7
D204	*J2	IC305	*C1	L902	H6
D205	*J2	IC306	A2	L903	A6
D206	*J2	IC307	B4	L1000	E2
D207	*J2	IC308	B4	L1001	E2
D208	C3	IC309	B4	L1002	E2
D209	C3	IC310	J2	L1003	E2
D210	*F3	IC312	J2	L1004	C3
D211	D3	IC313	J1	L1005	C2
D600	E5	IC314	J2	L1006	C2
D601	*D5	IC400	C3	L1007	C3
D602	*C5	IC401	B1	L1008	F7
D603	D6	IC402	E1	L1009	F7
D604	D6	IC403	*B1		
D605	C6	IC404	B4	LV900	J6
D606	C6	IC405	C4		
D607	C6	IC406	*B4	PH500	J9
D608	C6	IC407	C5	PH501	J8
D609	D6	IC408	E1	PH502	J6
D700	*B5	IC409	D1	PH503	J6
D701	*J5	IC410	C2		
D702	*C8	IC411	C2	Q100	*F4
D703	*B8	IC500	*H5	Q500	H3
D704	F5	IC501	J5	Q600	*D5
D705	F5	IC502	J5	Q601	*D5
D706	F5	IC503	H5	Q602	D5
D707	G5	IC504	J5	Q603	D5
D800	F5	IC505	F1	Q604	C5
D801	F5	IC507	G5	Q605	C5
D802	*G9	IC509	J3	Q606	C5
D803	*J7	IC511	H4	Q607	C5
D804	C5	IC512	J4	Q608	D5
D805	H7	IC513	G4	Q700	J3
D806	B8	IC514	H3	Q701	J5
D807	*J7	IC600	B5	Q702	H9
D808	*C6	IC601	*F5	Q800	*F6
D809	*H7	IC602	E5	Q801	G8
D810	C6	IC603	D5	Q802	*G8
D900	*J7	IC604	C4	Q803	G9
D901	*J7	IC605	*D4	Q804	*F6
D902	J9	IC606	*C5	Q805	G9
D903	J9	IC607	*C5	Q806	*G9
D904	*H6	IC608	D9	Q807	*G7
D905	*B6	IC609	E9	Q808	*C7
D1000	D3	IC610	E9	Q809	*G7
D1002	E7	IC611	*D7	Q810	*C7
D1003	E7	IC612	*D7	Q811	*J7
D1005	F7	IC613	E9	Q812	*H7
D1006	F7	IC615	C7	Q813	*C6
		IC701	B9	Q814	*B6
E100	E1	IC702	*C9	Q815	H7
E300	D1	IC703	C9	Q816	J7
E500	H5	IC704	B9	Q817	B6
E900	J9	IC705	C8	Q818	C6
E901	A8	IC706	F5	Q819	H7
E1000	C2	IC707	E8	Q820	J7
E1001	G7	IC800	F8	Q821	B6
		IC801	F9	Q822	C6



SST-13 -A SIDE-

SUFFIX: -12

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher



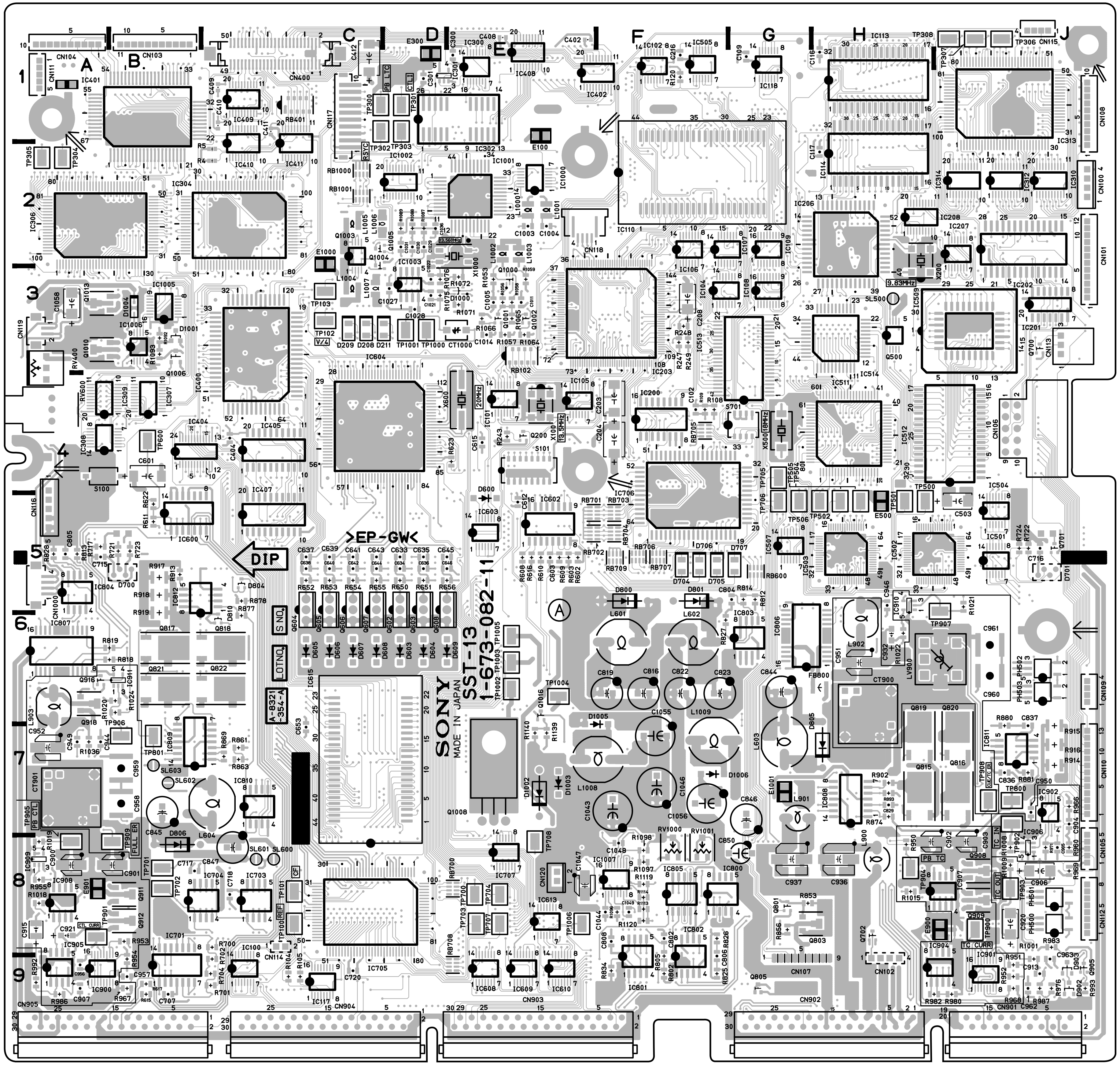
SST-13 -B SIDE-
SUFFIX: -12

Q823	*H7
Q824	*J7
Q825	*B6
Q826	*C6
Q900	*J8
Q901	*B9
Q902	*B9
Q903	*J9
Q904	*J9
Q905	J9
Q906	*J8
Q907	*B8
Q908	J8
Q909	J8
Q910	*J9
Q911	B8
Q912	B9
Q913	*H6
Q914	*A6
Q915	*H5
Q916	A6
Q917	*H5
Q918	A6
Q919	*H6
Q920	*H6
Q921	*A7
Q922	*A7
Q1000	E3
Q1001	E3
Q1002	E3
Q1003	C2
Q1004	C2
Q1005	C2
Q1007	*E7
Q1008	E7
Q1009	*F7
Q1011	*F7
Q1014	*E7
Q1015	*E7
Q1016	E6
RB100	*E3
RB101	*E3
RB102	E3
RB103	*G3
RB104	*F2
RB105	*F2
RB106	*F2
RB107	*E2
RB108	*E4
RB200	*F4
RB300	*A2
RB301	*B2
RB302	*A2
RB303	*J2
RB304	*J1
RB305	*J2
RB306	*J2
RB307	*J1
RB400	*B4
RB401	C1
RB500	*H4
RB501	*J3
RB502	*J3
RB503	*H4
RB504	*H4
RB505	*G3
RB506	*H3
RB507	*H4
RB600	G5
RB601	*C4
RB602	*D4
RB700	D8
RB701	E5
RB702	E5
RB703	F5
RB704	F5
RB705	F4
RB706	F5
RB707	F5
RB708	D9
RB709	F5
RB710	*F5
RB1000	C2
RB1001	C2
RV400	A3
RV600	A4
RV601	*B6
RV1000	F8
RV1001	F8
S100	A4
S101	E4
S701	G4
SL500	H3
SL600	C8
SL601	C8
SL602	B7
SL603	B7
THP1	B3
TP100	C9
TP101	C8
TP102	C3
TP103	C3
TP300	B3
TP301	B3
TP302	B3
TP303	B3
TP304	A2
TP305	A2
TP306	J1
TP307	J1
TP308	J1
TP500	H5
TP501	H5
TP502	H5
TP504	H5
TP505	H5
TP506	G5
TP600	B4
TP700	D8
TP701	B8
TP702	B8
TP703	D9
TP704	E8
TP705	G4
TP706	G5
TP707	E9
TP708	E8
TP800	J7
TP801	B7
TP900	J9
TP901	A9
TP902	J7
TP903	J8
TP904	H8
TP905	A8
TP906	B7
TP907	J5
TP908	J7
TP909	B8
TP1000	D3
TP1001	D3
TP1002	E6
TP1003	E6
TP1004	E6
TP1005	E6
TP1006	E9
X100	E4
X200	H2
X500	G4
X600	D4
X1000	D2

SST-13(1-673-082-11)

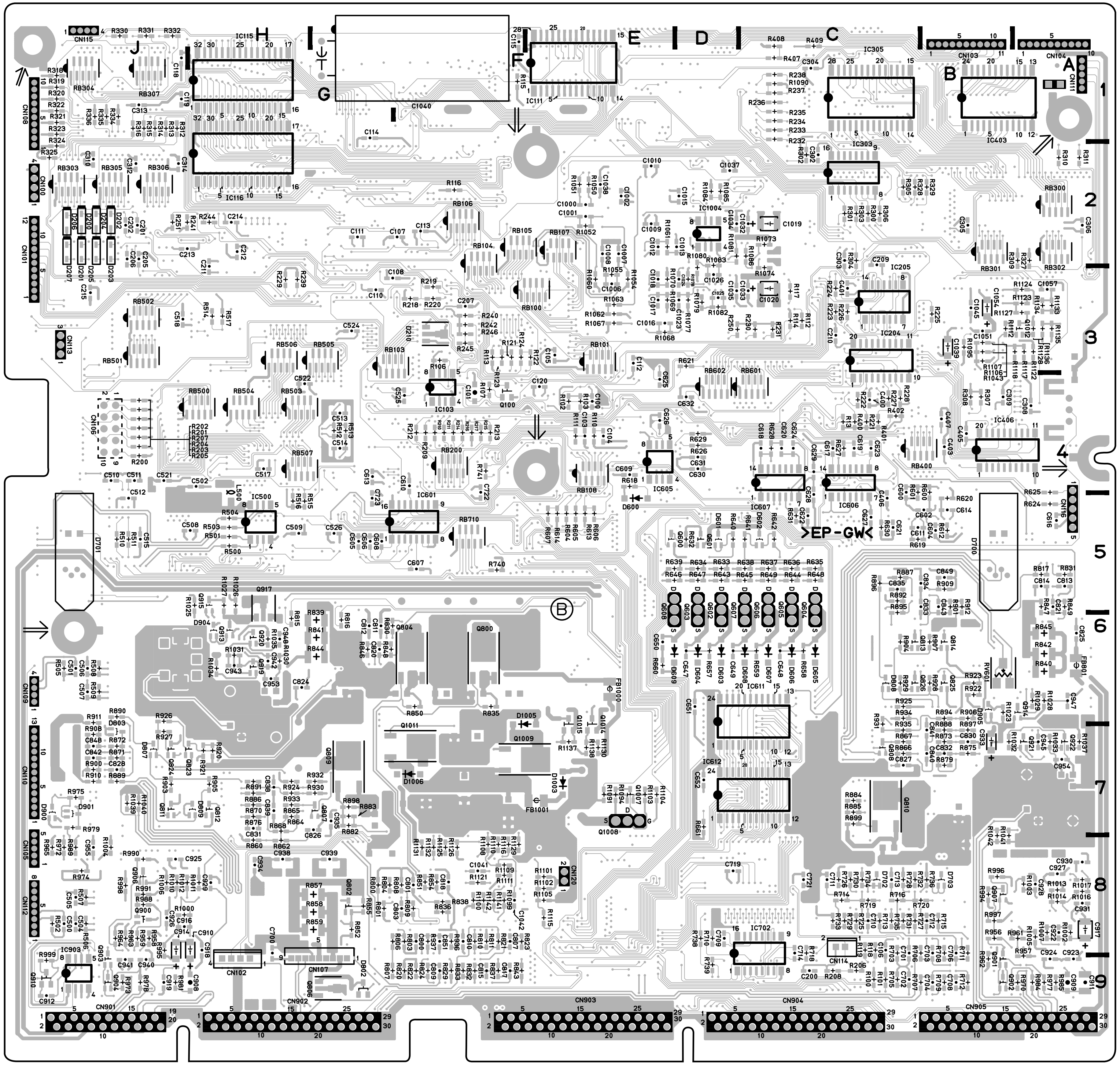
*:B SIDE

CN100	J2
CN101	J2
CN102	*H9
CN103	B1
CN104	A1
CN105	J8
CN106	J4
CN107	*G9
CN108	J1
CN109	J6
CN110	J7
CN111	A1
CN112	J8
CN113	J3
CN114	*C8
CN115	J1
CN116	A5
CN117	C1
CN118	E2
CN119	A3
CN120	E8
CN400	C1
CN901	J9
CN902	H9
CN903	E9
CN904	C9
CN905	B9
CN1000	A5
CT900	H6
CT901	A7
CT1000	E3
D200	*J2
D201	*J2
D202	*J2
D203	*J2
D204	*J2
D205	*J2
D206	*J2
D207	*J2
D208	C3
D209	C3
D210	*F3
D211	D3
D600	E5
D601	*D5
D602	*C5
D603	D6
D604	D6
D605	C6
D606	C6
D607	C6
D608	C6
D609	E6
D700	*B5
D701	*J5
D702	*C8
D703	*B8
D704	F5
D705	F5
D706	F5
D707	G5
D800	F5
D801	F5
D802	*G9
D803	*J7
D804	C5
D805	H7
D806	B8
D807	*J7
D808	*C6
D809	*H7
D810	C6
D900	*J7
D901	*J7
D902	J9
D903	J9
D904	*H6
D905	*B6
D1000	E3
D1001	B3
D1002	E7
D1003	E7
D1004	B3
D1005	F7
D1006	F7
E100	E1
E300	D1
E500	H5
E900	J8
E901	A8
E1000	C2
E1001	G7
FB800	H6
FB801	*A6
FB1000	*E6
FB1001	*E7
IC100	C9
IC101	E4
IC102	F1
IC103	*F4
IC104	F3
IC105	E4
IC106	F2
IC107	F2
IC108	G3
IC109	G2
IC110	F2
IC111	*E1
IC113	H1
IC114	H2
IC115	*H1
IC116	*H2
IC117	C9
IC118	G1
IC200	F4
IC201	J3
IC202	J3
IC203	F3
IC204	*C4
IC205	*C3
IC206	H2
IC207	J3
IC208	H2
IC300	E1
IC301	D1
IC302	D1
IC303	*C2
IC304	C2
IC305	*C1
IC306	A2
IC307	B4
IC308	B4
IC309	B4
IC310	J2
IC312	J2
IC313	J1
IC314	J2
IC400	C3
IC401	B1
IC402	E1
IC403	*B1
IC404	B4
IC405	C4
IC406	*B4
IC407	C5
IC408	E1
IC409	C1
IC410	C2
IC411	C2
IC500	*H5
IC501	J5
IC502	J5
IC503	H5
IC504	J5
IC505	F1
IC507	G5
IC509	J3
IC511	H4
IC512	J4
IC513	G4
IC514	H3
IC600	B5
IC601	*F5
IC602	E5
IC603	E5
IC604	C4
IC605	*E4
IC606	*C5
IC607	*C5
IC608	E9
IC609	E9
IC610	E9
IC611	*D7
IC612	*D7
IC613	E8
IC615	C7
IC701	B9
IC702	*C9
IC703	C8
IC704	B8
IC705	C8
IC706	F5
IC707	E8
IC800	F8
IC801	F9
IC802	F9
IC803	G6
IC804	A5
IC805	F8
IC806	H6
IC807	A6
IC808	H7
IC809	C7
IC810	C7
IC811	J7
IC812	C5
IC900	A9
IC901	J9
IC902	J7
IC903	*J9
IC904	H9
IC905	A9
IC906	J8
IC907	J8
IC908	A8
IC909	A8
IC910	H5
IC911	B6
IC1000	E2
IC1001	E2
IC1002	D2
IC1003	D3
IC1004	*D2
IC1005	B3
IC1006	B3
IC1007	F8
L500	*H4
L601	F6
L602	F6
L603	G7
L604	C7
L900	H8
L901	G7
L902	H6
L903	A6
L1000	E2
L1001	E2
L1002	E2
L1003	E2
L1004	C3
L1005	C2
L1006	C2
L1007	C3
L1008	F7
L1009	F7
LV900	J6
PH500	J8
PH501	J8
PH502	J6
PH503	J6
Q100	*F4
Q200	E4
Q500	H3
Q600	*E5
Q601	*D5
Q602	D5
Q603	D5
Q604	C5
Q605	C5
Q606	C5
Q607	C5
Q608	E5
Q700	J3
Q701	J5
Q702	H8
Q800	*F6
Q801	G8
Q802	*G8
Q803	G8
Q804	*F6
Q805	G9
Q806	*G9
Q807	*G7
Q808	*C7
Q809	*G7
Q810	*C7
Q811	*J7
Q812	*H7
Q813	*C6
Q814	*B6
Q815	H7
Q816	J7
Q817	B6



SST-13 -A SIDE-
SUFFIX: -11

HDW-250 (J) : S/N 30001 through 30050

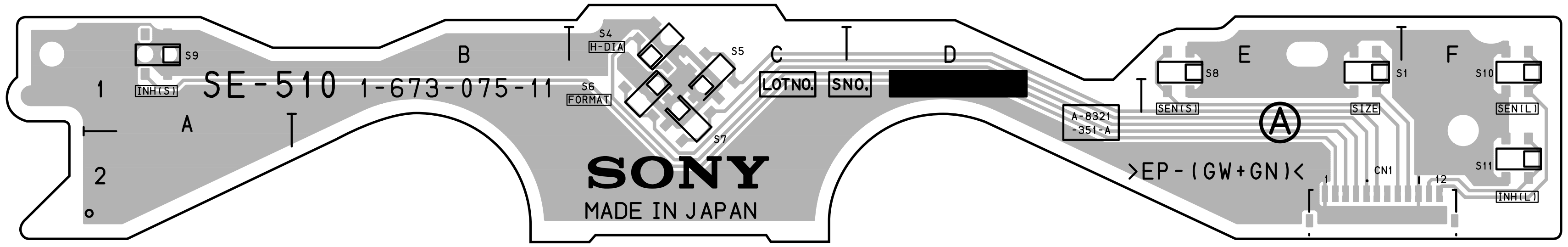

CN115
CN108
CN100
CN101
CN113
CN106
CN109
CN110
CN105
CN112
CN901
CN102
CN107
CN902
CN903
CN904
CN905
CN103
CN104
CN111
CN114
CN116
CN120
IC115
IC116
IC111
IC305
IC303
IC403
IC1004
IC205
IC204
IC406
IC103
IC605
IC607
IC606
IC601
IC500
IC611
IC612
IC702
IC903
>EP-GW<
A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
8
9

SST-13 -B SIDE-

SUFFIX: -11

Q818	C6	RV400	A3
Q819	H7	RV600	A4
Q820	J7	RV601	*B6
Q821	B6	RV1000	F8
Q822	C6	RV1001	F8
Q823	*H7		
Q824	*J7	S100	A4
Q825	*B6	S101	E4
Q826	*C6	S701	G4
Q900	*J8		
Q901	*B9	SL500	H3
Q902	*B9	SL600	C8
Q903	*J9	SL601	C8
Q904	*J9	SL602	B7
Q905	J9	SL603	B7
Q906	*J8		
Q907	*B8	TP100	C8
Q908	J8	TP101	C8
Q909	J8	TP102	C3
Q910	*J9	TP103	C3
Q911	B8	TP300	C1
Q912	B8	TP301	D1
Q913	*H6	TP302	C1
Q914	*A6	TP303	D1
Q915	*H5	TP304	A2
Q916	A6	TP305	A2
Q917	*H5	TP306	J1
Q918	A6	TP307	J1
Q919	*H6	TP308	J1
Q920	*H6	TP500	H5
Q921	*A7	TP501	H5
Q922	*A7	TP502	H5
Q1000	E3	TP504	H5
Q1001	E3	TP505	H5
Q1002	E3	TP506	G5
Q1003	C2	TP600	B4
Q1004	C2	TP700	E8
Q1005	C2	TP701	B8
Q1006	B3	TP702	B8
Q1007	*E7	TP703	E8
Q1008	E7	TP704	E8
Q1009	*F7	TP705	G4
Q1010	A3	TP706	G5
Q1011	*F7	TP707	E8
Q1012	*A3	TP708	E8
Q1013	A3	TP800	J7
Q1014	*E7	TP801	B7
Q1015	*E7	TP900	J8
Q1016	E6	TP901	A8
		TP902	J7
RB100	*E3	TP903	J8
RB101	*E3	TP904	H8
RB102	E3	TP905	A8
RB103	*G3	TP906	B7
RB104	*F2	TP907	J5
RB105	*F2	TP908	J7
RB106	*F2	TP909	B8
RB107	*E2	TP1000	D3
RB108	*E4	TP1001	D3
RB200	*F4	TP1002	E6
RB300	*A2	TP1003	E6
RB301	*B2	TP1004	E6
RB302	*A2	TP1005	E6
RB303	*J2	TP1006	E8
RB304	*J1		
RB305	*J2	X100	E4
RB306	*J2	X200	H2
RB307	*J1	X500	G4
RB400	*B4	X600	E4
RB401	C1	X1000	E2
RB500	*H4		
RB501	*J3		
RB502	*J3		
RB503	*H4		
RB504	*H4		
RB505	*G3		
RB506	*H3		
RB507	*H4		
RB600	G5		
RB601	*C4		
RB602	*D4		
RB700	E8		
RB701	E5		
RB702	E5		
RB703	F5		
RB704	F5		
RB705	F4		
RB706	F5		
RB707	F5		
RB708	E9		
RB709	F5		
RB710	*F5		
RB1000	C2		
RB1001	C2		

DET-15, DET-36, SE-435A, SE-510


SE-510 1-673-075-11
1
2
A
B
C
D
E
F
S4
S5
S6
S7
S8
S9
S1
S10
S11
H-DTA
FORMAT
INHI(S)
LOTNO.
SNO.
A-8321-351-A
SEN(S)
SIZE
SEN(L)
INHI(L)
CN1
SONY
MADE IN JAPAN
>EP-(GW+GN)<

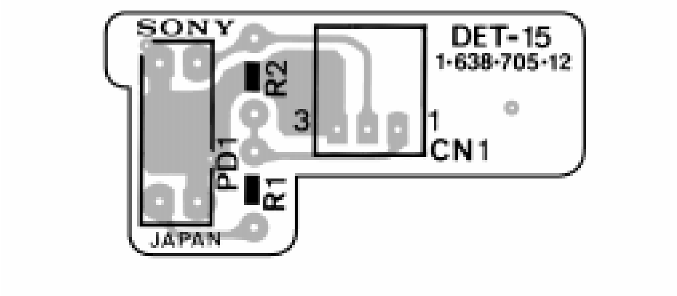
HDW-250 (UC) : **S/N 10001 and Higher**
HDW-250 (J) : **S/N 30001 and Higher**

SE-510 -A SIDE-
SUFFIX: -11

SE-510(1-673-075-11)

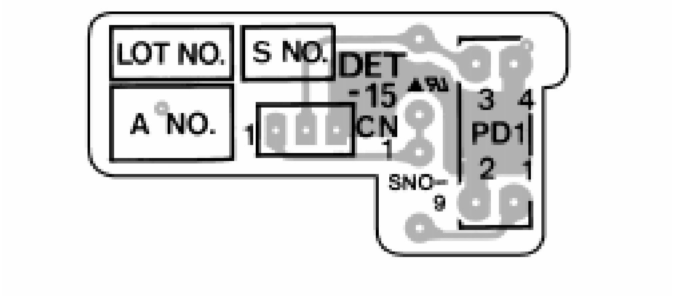
*:B SIDE

CN1	E2
S1	E1
S4	C1
S5	C1
S6	C1
S7	C1
S8	E1
S9	A1
S10	F1
S11	F2

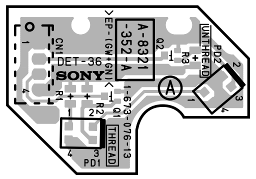

SONY
DET-15
1-638-705-12
R2
R1
PD1
3
1
CN1
JAPAN

HDW-250 (UC) : **S/N 10001 and Higher**
HDW-250 (J) : **S/N 30001 and Higher**

DET-15 -A SIDE-
SUFFIX: -12

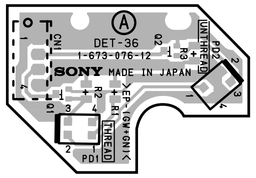

LOT NO.
S NO.
A NO.
DET-15
CN
PD1
3
4
2
1
SNO-9

DET-15 -B SIDE-
SUFFIX: -12


DET-36
SONY
A-8321-352-A
PD1
PD2
THREAD
UNTHREAD

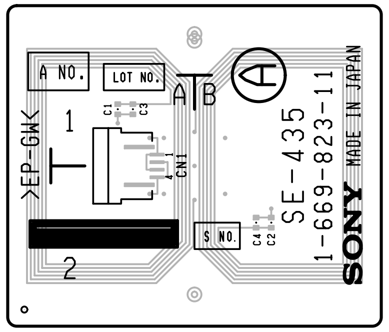
HDW-250 (UC) : **S/N 10001 and Higher**
HDW-250 (J) : **S/N 30016 and Higher**

DET-36 -A SIDE-
SUFFIX: -13


DET-36
1-673-076-12
SONY MADE IN JAPAN
PD1
PD2
THREAD
UNTHREAD
>EP-10(W+GN)<

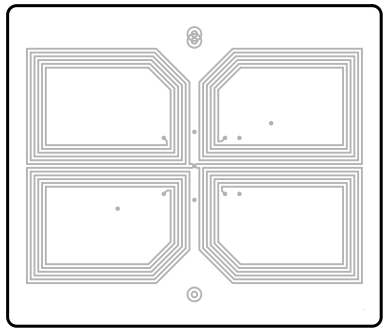
HDW-250 (J) : **S/N 30001 through 30015**

DET-36 -A SIDE-
SUFFIX: -12

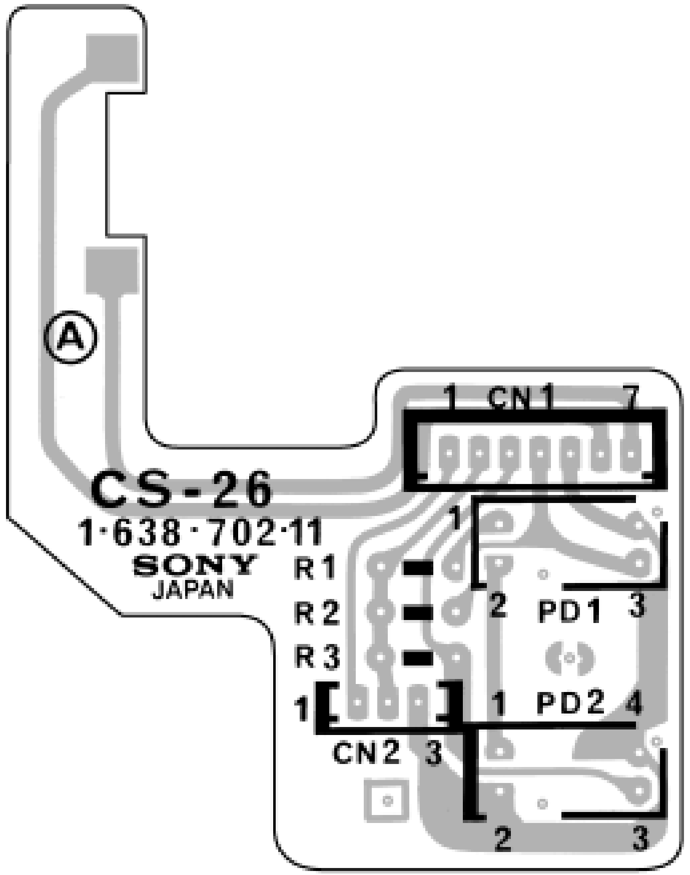

A NO.
LOT NO.
S NO.
A|B
>EP-GW<
1
2
CN1
C1
C2
C3
SE-435
1-669-823-11
SONY
MADE IN JAPAN

HDW-250 (UC) : **S/N 10001 and Higher**
HDW-250 (J) : **S/N 30001 and Higher**

SE-435A -A SIDE-
SUFFIX: -11

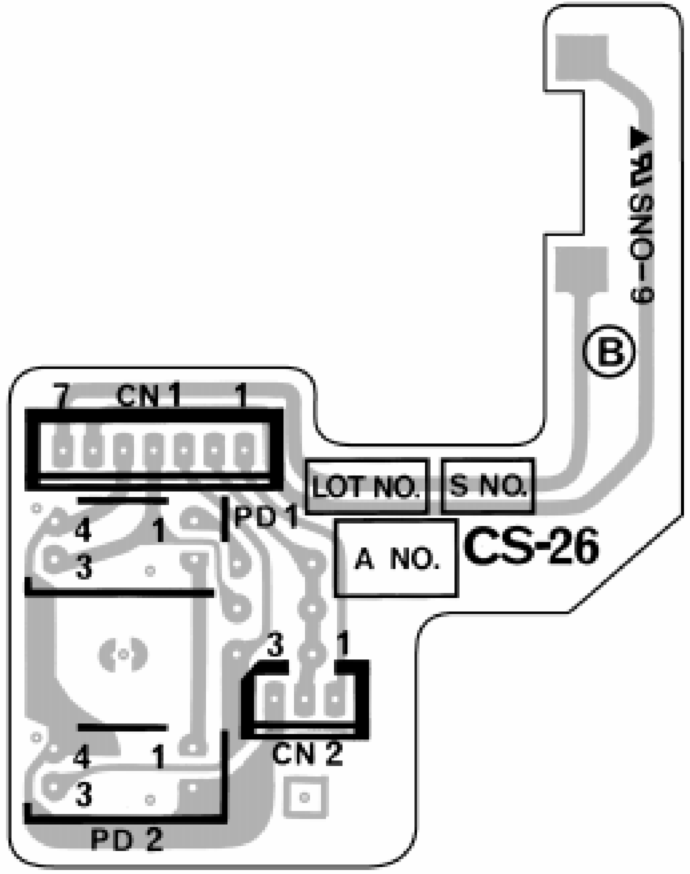


SE-435A -B SIDE-
SUFFIX: -11

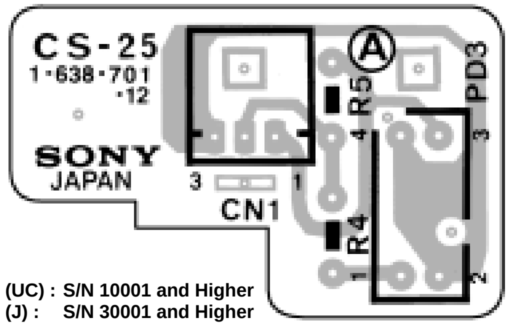

1 CN1 7
A
CS-26
1-638-702-11
SONY
JAPAN
R1
R2
R3
1
2 PD1 3
1 PD2 4
1 CN2 3
2 3

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

CS-26 -A SIDE-
SUFFIX: -11

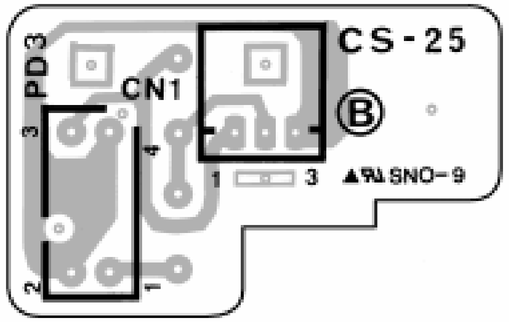

7 CN1 1
LOT NO.
S NO.
A NO.
CS-26
B
SNO-9
4 1 PD1
3
3 1
CN2
4 1
3
PD 2

CS-26 -B SIDE-
SUFFIX: -11

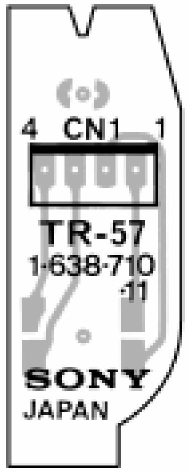

CS-25
1-638-701
-12
SONY
JAPAN
A
R5
R4
PD3
3 CN1 1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

CS-25 -A SIDE-
SUFFIX: -12

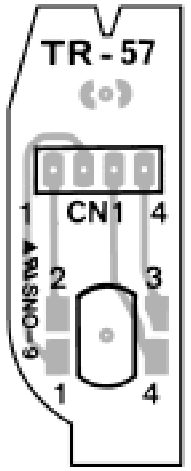

PD3
CN1
CS-25
B
1 3
SNO-9

CS-25 -B SIDE-
SUFFIX: -12

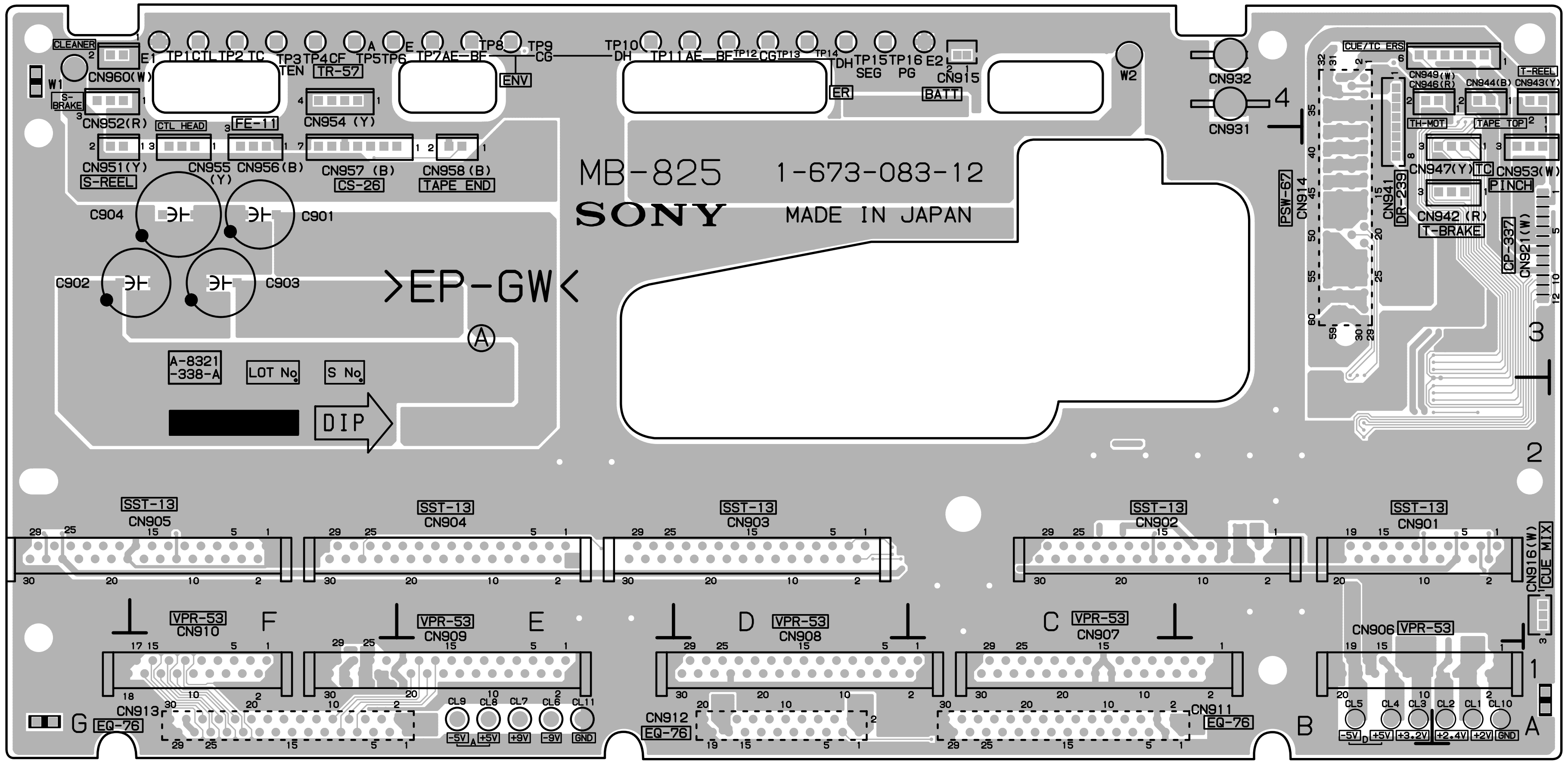

4 CN1 1
TR-57
1-638-710
-11
SONY
JAPAN

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

TR-57 -A SIDE-
SUFFIX: -11


TR-57
1 CN1 4
SNO-9
2 3
1 4

TR-57 -B SIDE-
SUFFIX: -11


MB-825 1-673-083-12
SONY
MADE IN JAPAN
>EP-GW<
A-8321-338-A
LOT No
S No
DIP
CN960(W)
CN952(R)
CN951(Y)
S-REEL
CN955 (Y)
CN956(B)
CN954 (Y)
CN957 (B)
CS-26
CN958(B)
TAPE END
TR-57
FE-11
CTL HEAD
CLEANER
S-BRAKE
W1
W2
ENV
ER
BATT
CN915
CN932
CN931
CN914
PSW-67
CN941
DP-239
CN942 (R)
T-BRAKE
CN947(Y)
CN953(W)
PINCH
TH-MOT
TAPE TOP
T-REEL
CN943(Y)
CN944(B)
CN949(W)
CN946(R)
CUE/TC ERS
CN921(W)
CP-337
CN916(W)
CUE MIX
C904
C901
C902
C903
TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16
E1 E2
CTL TC TEN CF AE-BF CG DH SEG PG
SST-13
CN905
CN904
CN903
CN902
CN901
VPR-53
CN910
CN909
CN908
CN907
CN906
EQ-76
CN913
CN912
CN911
CL9 CL8 CL7 CL6 CL11
-5V +5V +9V -9V GND
CL5 CL4 CL3 CL2 CL1 CL10
-5V +5V +3.2V +2.4V +2V GND
A B C D E F G
1 2 3 4

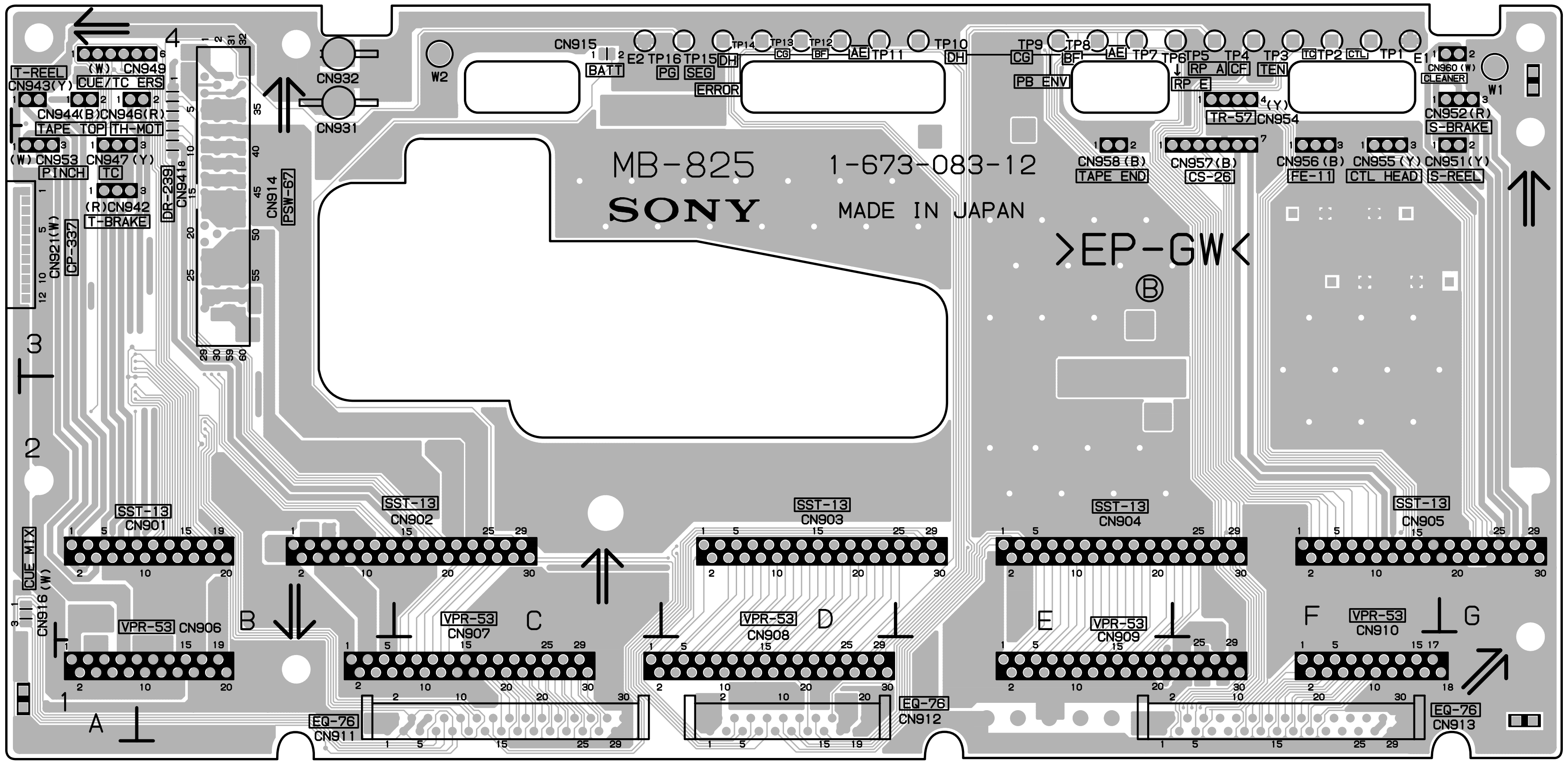
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

MB-825 -A SIDE-
SUFFIX: -12

MB-825(1-673-083-12)

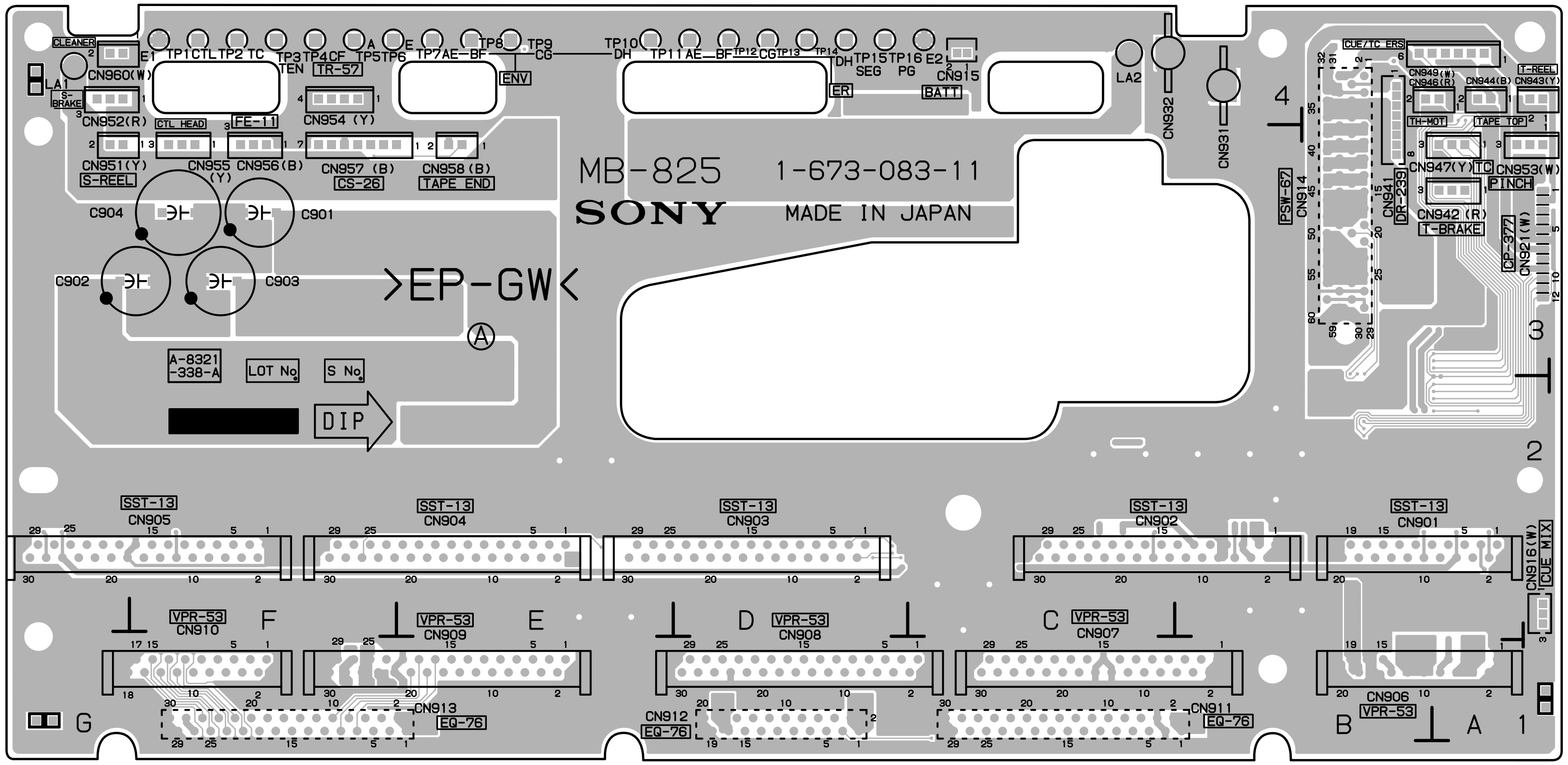
*:B SIDE

CL1	A1	CN914	*B3	TP1	F4
CL2	A1	CN915	C4	TP2	F4
CL3	B1	CN916	A2	TP3	F4
CL4	B1	CN921	*A3	TP4	F4
CL5	B1	CN931	B4	TP5	F4
CL6	E1	CN932	B4	TP6	F4
CL7	E1	CN941	B4	TP7	E4
CL8	E1	CN942	A3	TP8	E4
CL9	E1	CN943	A4	TP9	E4
CL10	A1	CN944	A4	TP10	E4
CL11	E1	CN946	B4	TP11	D4
		CN947	A3	TP12	D4
CN901	B2	CN949	A4	TP13	D4
CN902	C2	CN951	G3	TP14	D4
CN903	D2	CN952	G4	TP15	D4
CN904	E2	CN953	A3	TP16	D4
CN905	F2	CN954	F4		
CN906	B1	CN955	F3	W1	G4
CN907	C1	CN956	F3	W2	C4
CN908	D1	CN957	F3		
CN909	E1	CN958	E3		
CN910	F1	CN960	G4		
CN911	*C1				
CN912	*D1	E1	F4		
CN913	*F1	E2	C4		


MB-825 1-673-083-12
SONY
MADE IN JAPAN
>EP-GW<
Ⓑ
CN915
BATT
E2 TP16 TP15 TP14 TP13 TP12 TP11 TP10 TP9 TP8 TP7 TP6 TP5 TP4 TP3 TP2 TP1 E1
PG
SEG
DH
CG
BF
AE
ERROR
PB ENV
RP A
CF
TEN
TG
CTL
RP E
CN960 (W)
CLEANER
W1
W2
CN932
CN931
T-REEL
CN943(Y)
(W) CN949
CUE/TC ERS
CN944(B)
TAPE TOP
CN946(R)
TH-MOT
(W) CN953
PINCH
CN947(Y)
TC
(R)CN942
T-BRAKE
CN941
DR-239
CN914
PSW-67
CN921(W)
CP-337
TR-57
CN954
CN952(R)
S-BRAKE
CN958 (B)
TAPE END
CN957(B)
CS-26
CN956 (B)
FE-11
CN955 (Y)
CTL HEAD
CN951(Y)
S-REEL
SST-13
CN901
CN902
CN903
CN904
CN905
CUE MIX
CN916 (W)
VPR-53
CN906
CN907
CN908
CN909
CN910
EQ-76
CN911
CN912
CN913
A
B
C
D
E
F
G
1
2
3
4

MB-825 -B SIDE-

SUFFIX: -12


MB-825 1-673-083-11
SONY
MADE IN JAPAN
EP-GW
A-8321 -338-A
LOT No
S No
DIP
CLEANER
CN960(W)
LA1
S-BRAKE
CN952(R)
CTL HEAD
FE-11
CN954 (Y)
TR-57
CN951(Y)
S-REEL
CN955 (Y)
CN956(B)
CN957 (B)
CS-26
CN958(B)
TAPE END
C904
C901
C902
C903
E1
TP1 CTL
TP2 TC
TP3 TEN
TP4 CF
TP5
TP6
TP7 AE
BF
TP8
TP9 CG
ENV
TP10 DH
TP11 AE
BF
TP12 CG
TP13
TP14 DH
ER
TP15 SEG
TP16 PG
E2
CN915
BATT
LA2
CN932
CN931
CUE/TC ERS
CN949(W)
CN946(R)
CN944(B)
CN943(Y)
T-REEL
TH-HOT
TAPE TOP
CN947(Y)
TC
CN953(W)
PINCH
CN942 (R)
T-BRAKE
PSW-67
CN914
CN941
DR-239
CP-377
CN921(W)
CN916(W)
CUE MIX
SST-13
CN905
CN904
CN903
CN902
CN901
VPR-53
CN910
CN909
CN908
CN907
CN906
CN913
EQ-76
CN912
EQ-76
CN911
EQ-76
G
F
E
D
C
B
A
1
2
3
4

HDW-250 (J) : S/N 30001 through 30050

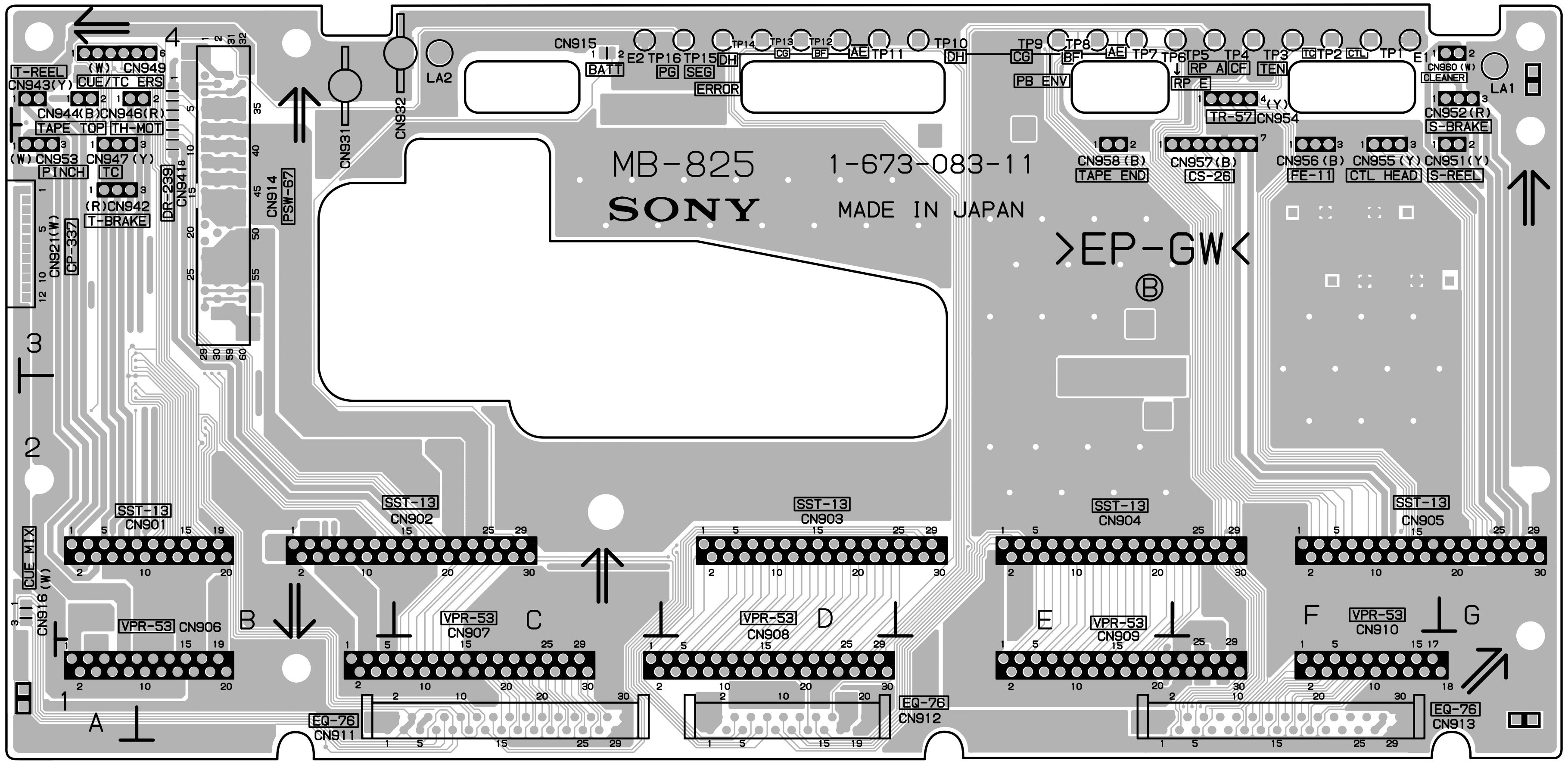
MB-825 -A SIDE-

SUFFIX: -11

MB-825(1-673-083-11)

*:B SIDE

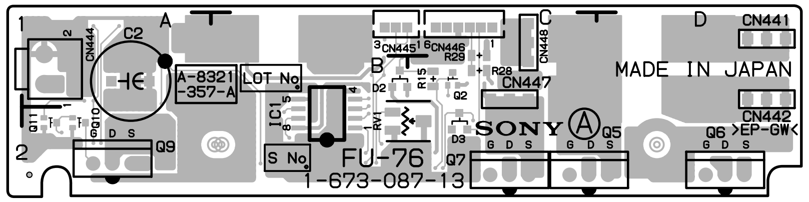
CN901	B2	CN944	A4	TP3	F4
CN902	C2	CN946	B4	TP4	F4
CN903	D2	CN947	A3	TP5	F4
CN904	E2	CN949	A4	TP6	F4
CN905	F2	CN951	G3	TP7	E4
CN906	B1	CN952	G4	TP8	E4
CN907	C1	CN953	A3	TP9	E4
CN908	D1	CN954	F4	TP10	E4
CN909	E1	CN955	F3	TP11	D4
CN910	F1	CN956	F3	TP12	D4
CN911	*C1	CN957	F3	TP13	D4
CN912	*D1	CN958	E3	TP14	D4
CN913	*F1	CN960	G4	TP15	D4
CN914	*B3			TP16	D4
CN915	C4	E1	F4		
CN916	A2	E2	C4		
CN921	*A3				
CN931	B4	LA1	G4		
CN932	C4	LA2	C4		
CN941	B4				
CN942	A3	TP1	F4		
CN943	A4	TP2	F4		


MB-825
1-673-083-11
SONY
MADE IN JAPAN
>EP-GW<
Ⓑ
CN915
BATT
E2
TP16
PG
TP15
SEG
ERROR
DH
TP14
TP13
CG
TP12
BF
AE
TP11
TP10
DH
TP9
CG
TP8
BF
AE
TP7
TP6
PB ENV
TP5
RP A
RP E
TP4
CF
TP3
TEN
TG
TP2
CTL
TP1
E1
CN960 (W)
CLEANER
LA1
LA2
CN931
CN932
T-REEL
CN943(Y)
(W) CN949
CUE/TC ERS
CN944(B)
TAPE TOP
CN946(R)
TH-MOT
(W) CN953
PINCH
CN947(Y)
TC
(R) CN942
T-BRAKE
CN941
DR-239
CN914
PSW-67
CN921(W)
CP-337
CN954
TR-57
(Y)
CN952(R)
S-BRAKE
CN958 (B)
TAPE END
CN957(B)
CS-26
CN956 (B)
FE-11
CN955 (Y)
CTL HEAD
CN951(Y)
S-REEL
SST-13
CN901
SST-13
CN902
SST-13
CN903
SST-13
CN904
SST-13
CN905
CUE MIX
CN916 (W)
VPR-53
CN906
VPR-53
CN907
VPR-53
CN908
VPR-53
CN909
VPR-53
CN910
EQ-76
CN911
EQ-76
CN912
EQ-76
CN913
1
2
3
4
A
B
C
D
E
F
G

MB-825 -B SIDE-

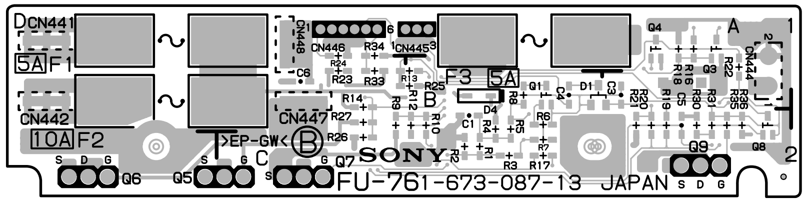
SUFFIX: -11

DC-85, FU-76


MADE IN JAPAN
SONY
FU-76
1-673-087-13
CN441
CN442
CN444
CN445
CN446
CN447
CN448
C2
IC1
RV1
Q5
Q6
Q7
Q9
Q10
Q11
EP-GW

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

FU-76 -A SIDE-
SUFFIX: -13


SONY
FU-76 1-673-087-13 JAPAN
CN441
CN442
CN446
CN447
5A F1
10A F2
F3 5A
EP-GW
Q5
Q6
Q7
Q9

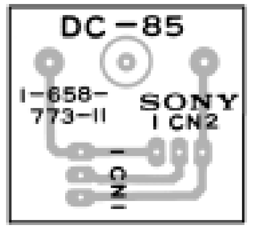
FU-76 -B SIDE-
SUFFIX: -13

FU-76(1-673-087-13)

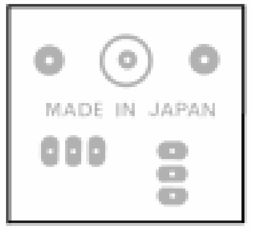
*:B SIDE

CN441	D1	IC1	B2
CN442	D1		
CN444	A1	Q1	*B1
CN445	B1	Q2	C1
CN446	C1	Q3	*A1
CN447	C1	Q4	*A1
CN448	C1	Q5	C2
		Q6	D2
D1	*B1	Q7	C2
D2	B1	Q8	*A2
D3	C2	Q9	A2
D4	*B1	Q10	A2
		Q11	A2
F1	*D1		
F2	*D1	RV1	C2
F3	*B1		

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

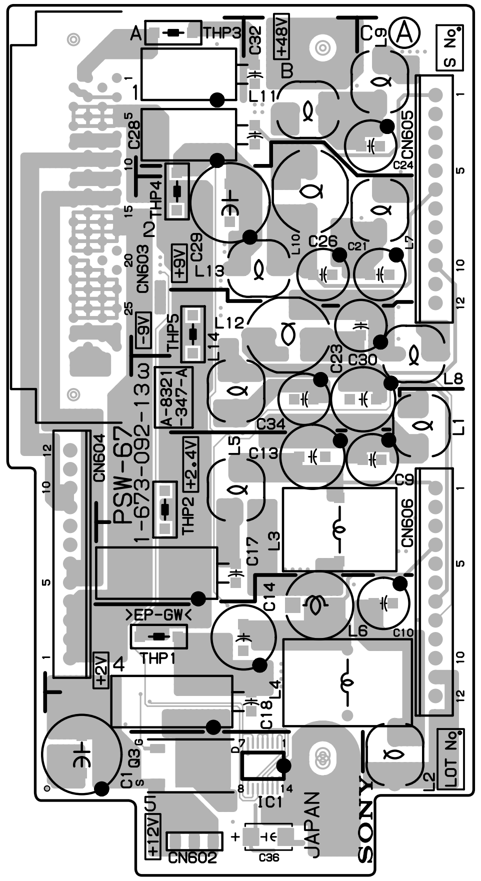

DC-85
1-658-773-11
SONY
CN2
CN1

DC-85 -A SIDE-
SUFFIX: -11


MADE IN JAPAN

DC-85 -B SIDE-
SUFFIX: -11

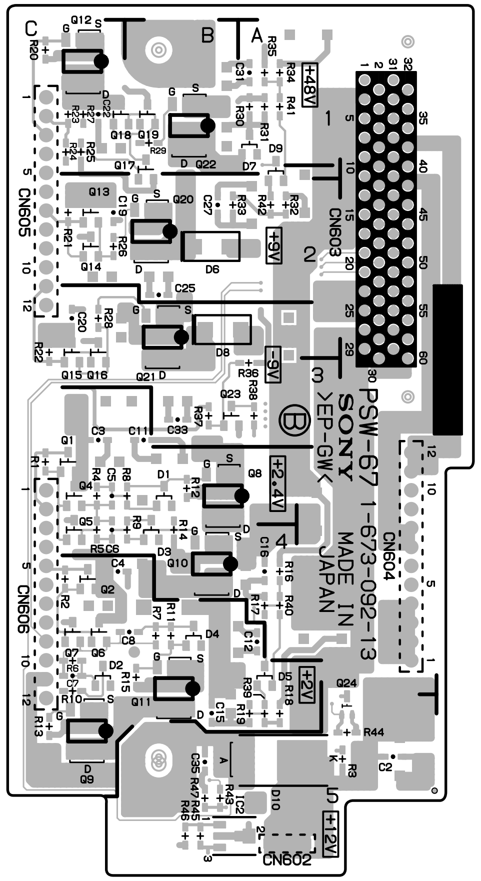
4-24


PSW-67
1-673-092-13
A-8321
-347-A
SONY
JAPAN
CN602
CN603
CN604
CN605
CN606
>EP-GW<
+48V
+9V
-9V
+2.4V
+2V
+12V
S No
LOT No
IC1
THP1
THP2
THP3
THP4
THP5

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

PSW-67 -A SIDE-

SUFFIX: -13


PSW-67
1-673-092-13
SONY
MADE IN
JAPAN
>EP-GW<
CN602
CN603
CN604
CN605
CN606
+48V
+9V
-9V
+2.4V
+2V
+12V

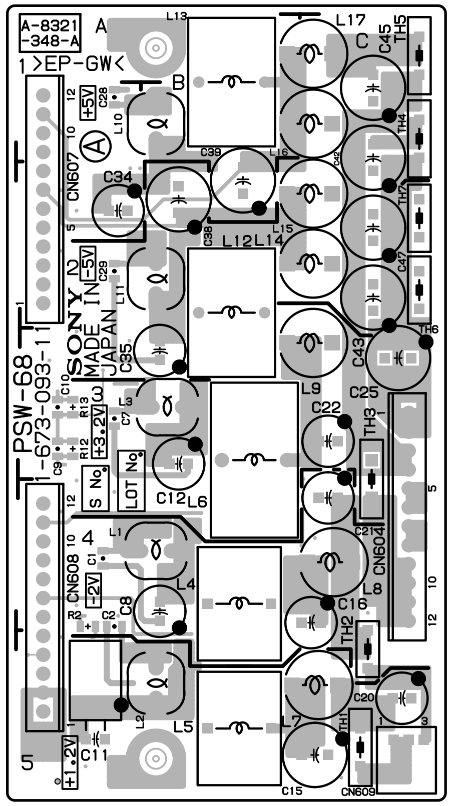
PSW-67 -B SIDE-

SUFFIX: -13

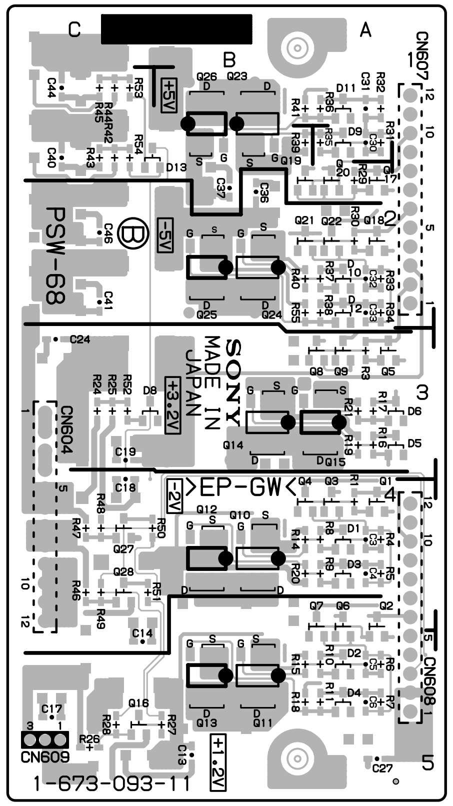
PSW-67(1-673-092-13)

*:B SIDE

CN602	A5	L9	C1	Q22	*B1
CN603	A2	L10	B2	Q23	*B3
CN604	A4	L11	B1	Q24	*A5
CN605	C2	L12	B2		
CN606	C4	L13	B2	THP1	A4
		L14	A3	THP2	A3
D1	*B3			THP3	A1
D2	*C4	Q1	*C3	THP4	A2
D3	*B4	Q2	*C4	THP5	A2
D4	*B4	Q3	A5		
D5	*A4	Q4	*C3		
D6	*B2	Q5	*C4		
D7	*A1	Q6	*C4		
D8	*B2	Q7	*C4		
D9	*A1	Q8	*B3		
D10	*A5	Q9	*C5		
		Q10	*B4		
IC1	B5	Q11	*B4		
IC2	*B5	Q12	*C1		
		Q13	*C2		
L1	C3	Q14	*C2		
L2	C5	Q15	*C2		
L3	B4	Q16	*C2		
L4	B4	Q17	*B1		
L5	A3	Q18	*C1		
L6	B4	Q19	*B1		
L7	C2	Q20	*B2		
L8	C2	Q21	*B2		


A-8321
-348-A
PSW-68
1-673-093-11
SONY
MADE IN
JAPAN
>EP-GW<
CN604
CN607
CN608
CN609
+5V
-5V
+3.2V
+2V
+1.2V
S No
LOT No

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


PSW-68
1-673-093-11
SONY
MADE IN
JAPAN
>EP-GW<
CN604
CN607
CN608
CN609
+5V
-5V
+3.2V
-2V
+1.2V

PSW-68 -A SIDE-

SUFFIX: -11

PSW-68 -B SIDE-

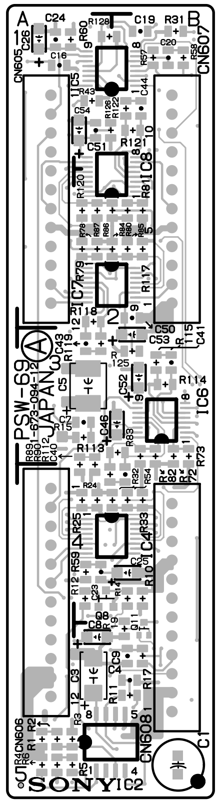
SUFFIX: -11

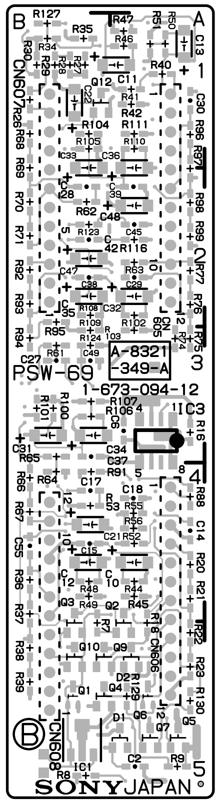
PSW-68(1-673-093-11)

*:B SIDE

CN604	C4	L12	B2	Q23	*B1
CN607	A2	L13	B1	Q24	*B2
CN608	A4	L14	C2	Q25	*B2
CN609	C5	L15	C2	Q26	*B1
		L16	C1	Q27	*C4
D1	*A4	L17	C1	Q28	*C4
D2	*A5				
D3	*A4	Q1	*A4	TH1	C5
D4	*A5	Q2	*A4	TH2	C5
D5	*A3	Q3	*A4	TH3	C3
D6	*A3	Q4	*B4	TH4	C1
D8	*C3	Q5	*A3	TH5	C1
D9	*A1	Q6	*A4	TH6	C2
D10	*A2	Q7	*A4	TH7	C2
D11	*A1	Q8	*A3		
D12	*A2	Q9	*A3		
D13	*C1	Q10	*B4		
		Q11	*B5		
L1	B4	Q12	*B4		
L2	B5	Q13	*B5		
L3	B3	Q14	*B3		
L4	B4	Q15	*A3		
L5	B5	Q16	*C5		
L6	B3	Q17	*A2		
L7	C5	Q18	*A2		
L8	C4	Q19	*B2		
L9	C3	Q20	*A2		
L10	B1	Q21	*B2		
L11	B2	Q22	*A2		

CN-1795, CN-1926, PSW-69, PSW-70


PSW-69
JAPAN
SONY
CN605
CN606
CN607
CN608
IC2
C1
A
B


PSW-69
A-8321
-349-A
1-673-094-12
SONY JAPAN
CN607
CN608
IC1
IC3
A
B

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

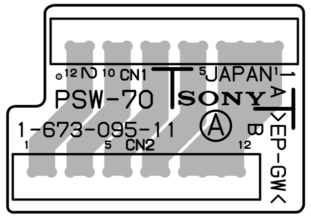
PSW-69 -A SIDE-
SUFFIX: -12

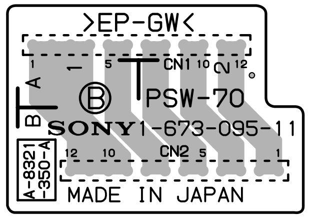
PSW-69 -B SIDE-
SUFFIX: -12

PSW-69(1-673-094-12)

*:B SIDE

CN605	A2
CN606	A4
CN607	B2
CN608	B4
D1	*A5
D2	*A5
IC1	*B5
IC2	A5
IC3	*A3
IC4	A4
IC5	B1
IC6	B3
IC7	A2
IC8	B2
Q1	*B5
Q2	*A5
Q3	*B5
Q4	*B5
Q5	*A5
Q6	*A5
Q7	*A5
Q8	A4
Q9	*B5
Q10	*B5
Q11	B5
Q12	*B1

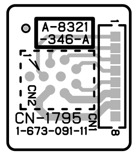

PSW-70
CN1
CN2
JAPAN
SONY
1-673-095-11
A
B
>EP-GW<

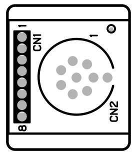

>EP-GW<
CN1
CN2
PSW-70
SONY 1-673-095-11
A-8321
-350-A
MADE IN JAPAN
A
B

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

PSW-70 -A SIDE-
SUFFIX: -11

PSW-70 -B SIDE-
SUFFIX: -11

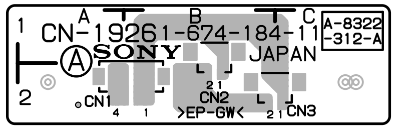

A-8321
-346-A
CN-1795
1-673-081-11
CN1
CN2

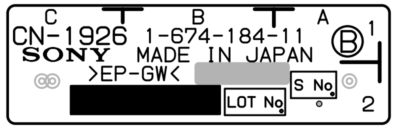


HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

CN-1795 -A SIDE-
SUFFIX: -11

CN-1795 -B SIDE-
SUFFIX: -11


CN-1926 1-674-184-11
A-8322
-312-A
SONY
JAPAN
CN1
CN2
CN3
>EP-GW<
A
B
C


CN-1926 1-674-184-11
SONY MADE IN JAPAN
>EP-GW<
LOT No
S No
A
B
C

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

CN-1926 -A SIDE-
SUFFIX: -11

CN-1926 -B SIDE-
SUFFIX: -11

Section 5
Schematic Diagrams

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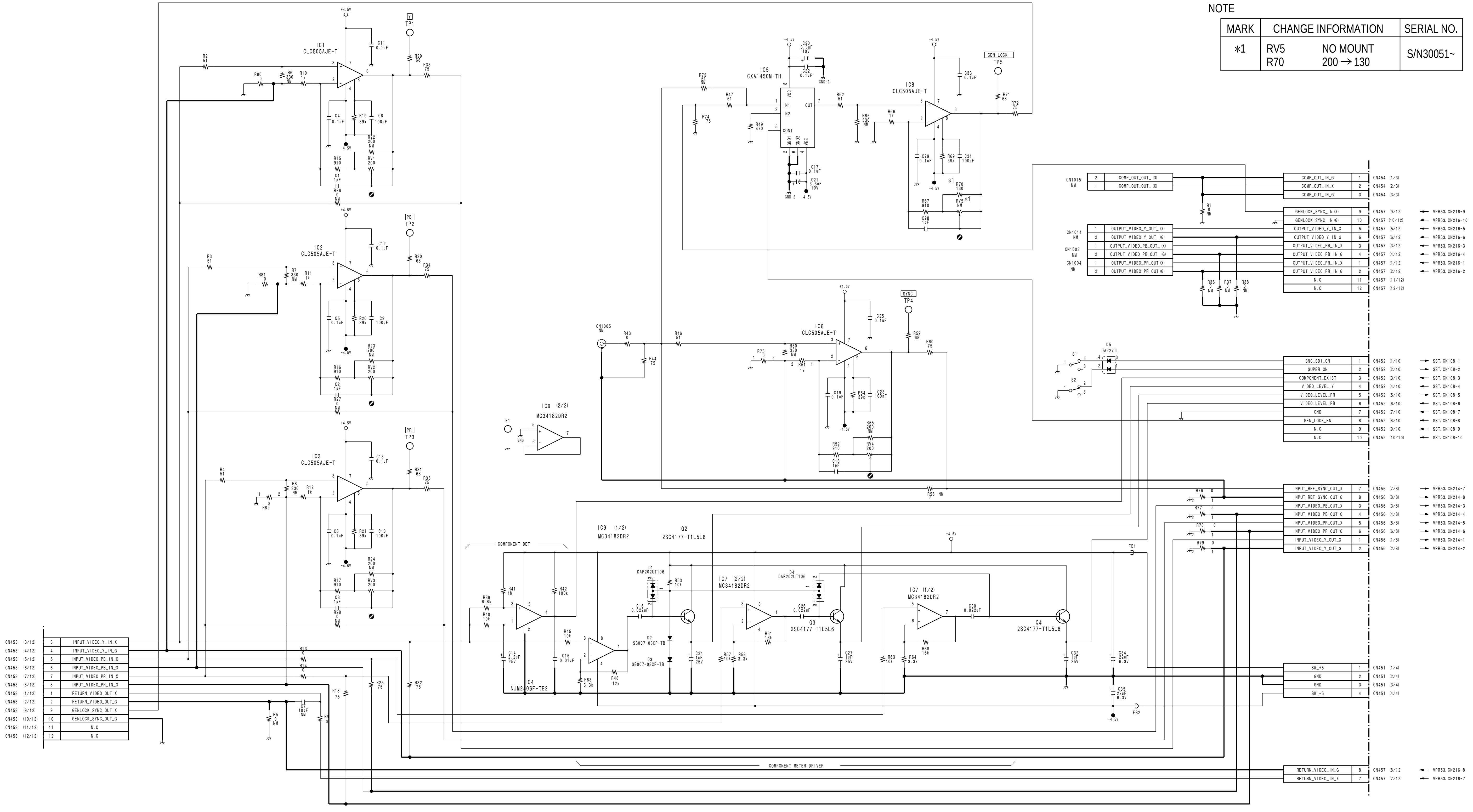
FRAME		Frame Wiring	5-115

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

NOTE

MARK	CHANGE INFORMATION		SERIAL NO.
✻1	RV5 R70	NO MOUNT 200 → 130	S/N30051~



IC1 CLC505AJE-T
IC2 CLC505AJE-T
IC3 CLC505AJE-T
IC4 NJM2406F-TE2
IC5 CXA1450M-TH
IC6 CLC505AJE-T
IC7 (1/2) MC34182DR2
IC7 (2/2) MC34182DR2
IC8 CLC505AJE-T
IC9 (1/2) MC34182DR2
IC9 (2/2) MC34182DR2
Q2 2SC4177-T1L5L6
Q3 2SC4177-T1L5L6
Q4 2SC4177-T1L5L6
D1 DAP202UT106
D2 SB007-03CP-TB
D3 SB007-03CP-TB
D4 DAP202UT106
D5 DA227TL
Y TP1
PB TP2
PR TP3
SYNC TP4
GEN LOCK TP5
COMPONENT DET
COMPONENT METER DRIVER
CN1005 NM
CN1015 NM
CN1014 NM
CN1003 NM
CN1004 NM
S1
S2
E1
FB1
FB2
+4.5V
-4.5V
CN453 (3/12) INPUT_VIDEO_Y_IN_X
CN453 (4/12) INPUT_VIDEO_Y_IN_G
CN453 (5/12) INPUT_VIDEO_PB_IN_X
CN453 (6/12) INPUT_VIDEO_PB_IN_G
CN453 (7/12) INPUT_VIDEO_PR_IN_X
CN453 (8/12) INPUT_VIDEO_PR_IN_G
CN453 (1/12) RETURN_VIDEO_OUT_X
CN453 (2/12) RETURN_VIDEO_OUT_G
CN453 (9/12) GENLOCK_SYNC_OUT_X
CN453 (10/12) GENLOCK_SYNC_OUT_G
CN453 (11/12) N.C
CN453 (12/12) N.C
COMP_OUT_IN_G CN454 (1/3)
COMP_OUT_IN_X CN454 (2/3)
COMP_OUT_IN_G CN454 (3/3)
GENLOCK_SYNC_IN (X) CN457 (9/12) VPR53 CN216-9
GENLOCK_SYNC_IN (G) CN457 (10/12) VPR53 CN216-10
OUTPUT_VIDEO_Y_IN_X CN457 (5/12) VPR53 CN216-5
OUTPUT_VIDEO_Y_IN_G CN457 (6/12) VPR53 CN216-6
OUTPUT_VIDEO_PB_IN_X CN457 (3/12) VPR53 CN216-3
OUTPUT_VIDEO_PB_IN_G CN457 (4/12) VPR53 CN216-4
OUTPUT_VIDEO_PR_IN_X CN457 (1/12) VPR53 CN216-1
OUTPUT_VIDEO_PR_IN_G CN457 (2/12) VPR53 CN216-2
N.C CN457 (11/12)
N.C CN457 (12/12)
BNC_SDI_ON CN452 (1/10) SST CN108-1
SUPER_ON CN452 (2/10) SST CN108-2
COMPONENT_EXIST CN452 (3/10) SST CN108-3
VIDEO_LEVEL_Y CN452 (4/10) SST CN108-4
VIDEO_LEVEL_PR CN452 (5/10) SST CN108-5
VIDEO_LEVEL_PB CN452 (6/10) SST CN108-6
GND CN452 (7/10) SST CN108-7
GEN_LOCK_EN CN452 (8/10) SST CN108-8
N.C CN452 (9/10) SST CN108-9
N.C CN452 (10/10) SST CN108-10
INPUT_REF_SYNC_OUT_X CN456 (7/8) VPR53 CN214-7
INPUT_REF_SYNC_OUT_G CN456 (8/8) VPR53 CN214-8
INPUT_VIDEO_PB_OUT_X CN456 (3/8) VPR53 CN214-3
INPUT_VIDEO_PB_OUT_G CN456 (4/8) VPR53 CN214-4
INPUT_VIDEO_PR_OUT_X CN456 (5/8) VPR53 CN214-5
INPUT_VIDEO_PR_OUT_G CN456 (6/8) VPR53 CN214-6
INPUT_VIDEO_Y_OUT_X CN456 (1/8) VPR53 CN214-1
INPUT_VIDEO_Y_OUT_G CN456 (2/8) VPR53 CN214-2
SW_+5 CN451 (1/4)
GND CN451 (2/4)
GND CN451 (3/4)
SW_-5 CN451 (4/4)
RETURN_VIDEO_IN_G CN457 (8/12) VPR53 CN216-8
RETURN_VIDEO_IN_X CN457 (7/12) VPR53 CN216-7

CC-82

BOARD NO. 1-673-084-11
LOT NO. 812-
HDW-250_CC-82_011_1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

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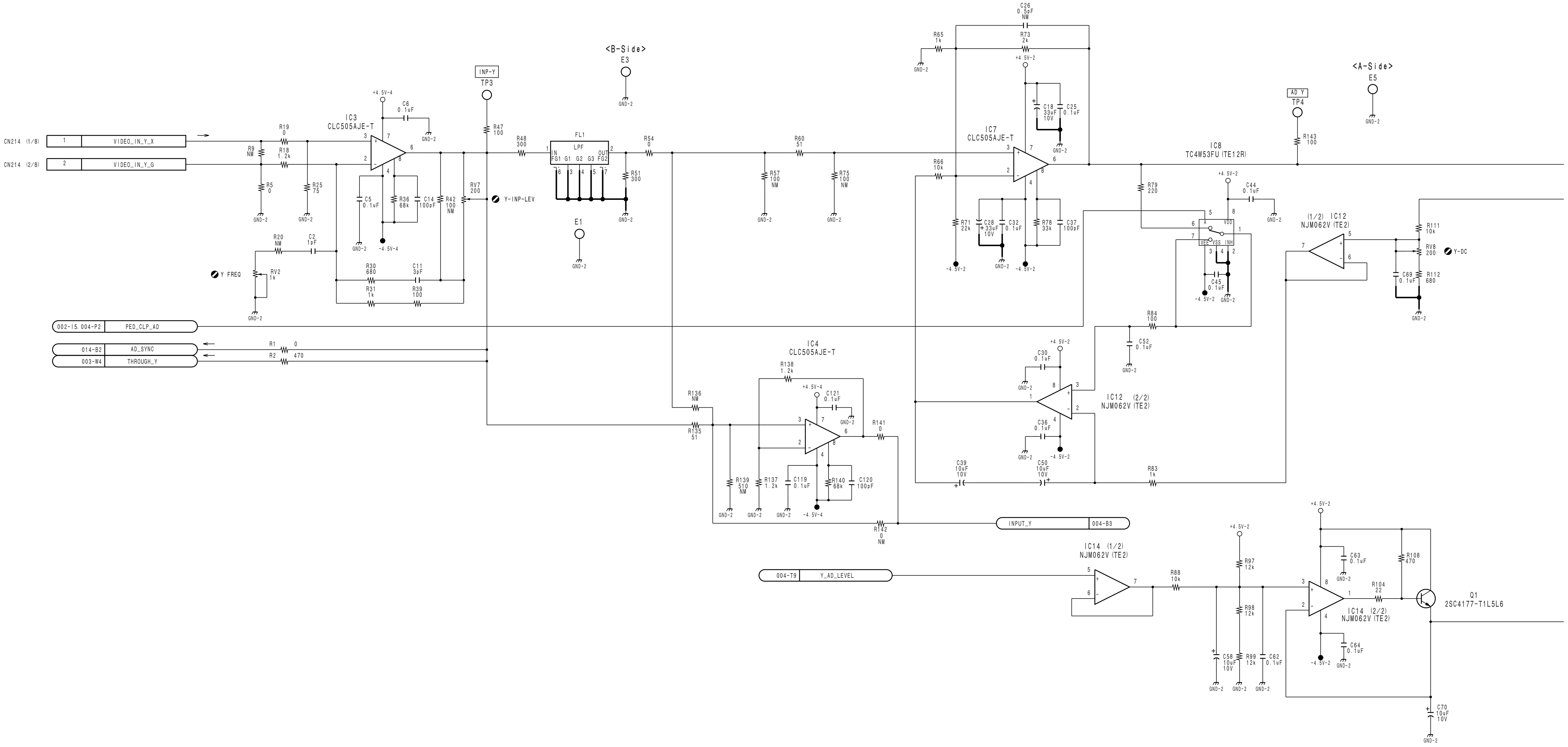
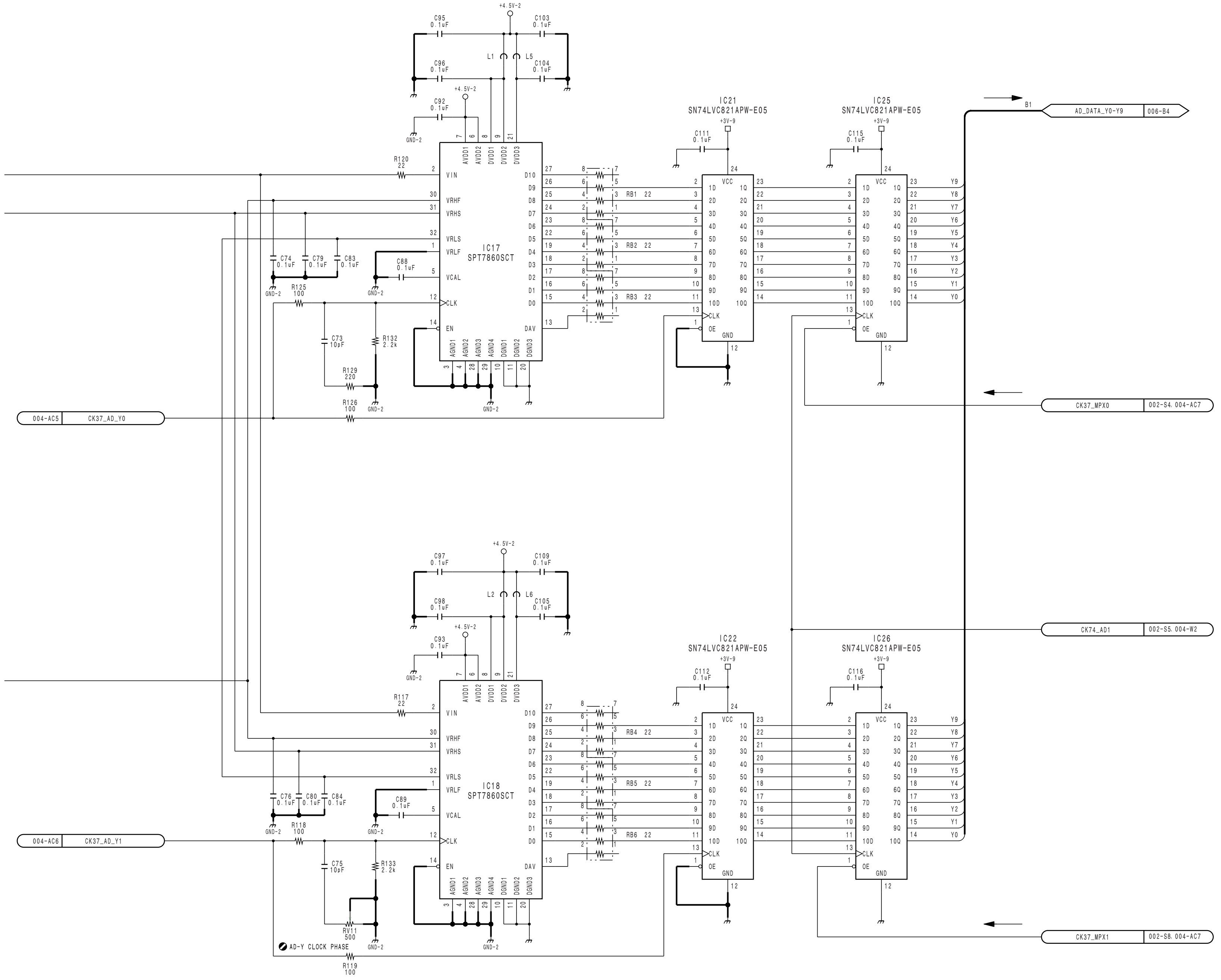

CN214 (1/8) 1 VIDEO_IN_Y_X
CN214 (2/8) 2 VIDEO_IN_Y_G
IC3 CLC505AJE-T
IC4 CLC505AJE-T
IC7 CLC505AJE-T
IC8 TC4W53FU (TE12R)
(1/2) IC12 NJM062V (TE2)
IC12 (2/2) NJM062V (TE2)
IC14 (1/2) NJM062V (TE2)
IC14 (2/2) NJM062V (TE2)
Q1 2SC4177-T1L5L6
FL1 LPF
<B-Side> E3
<A-Side> E5
E1
INP-Y TP3
AD Y TP4
Y-INP-LEV
Y FREQ
Y-DC
002-I5.004-P2 PED_CLP_AD
014-B2 AD_SYNC
003-W4 THROUGH_Y
INPUT_Y 004-B3
004-T9 Y_AD_LEVEL
+4.5V-4
-4.5V-4
+4.5V-2
-4.5V-2
GND-2


IC17
SPT7860SCT
IC18
SPT7860SCT
IC21
SN74LVC821APW-E05
IC22
SN74LVC821APW-E05
IC25
SN74LVC821APW-E05
IC26
SN74LVC821APW-E05
+4.5V-2
+3V-9
GND-2
C95 0.1uF
C103 0.1uF
C96 0.1uF
C104 0.1uF
L1
L5
C92 0.1uF
C111 0.1uF
C115 0.1uF
R120 22
C74 0.1uF
C79 0.1uF
C83 0.1uF
C88 0.1uF
R125 100
C73 10pF
R132 2.2k
R129 220
R126 100
RB1 22
RB2 22
RB3 22
C97 0.1uF
C109 0.1uF
C98 0.1uF
C105 0.1uF
L2
L6
C93 0.1uF
C112 0.1uF
C116 0.1uF
R117 22
C76 0.1uF
C80 0.1uF
C84 0.1uF
C89 0.1uF
R118 100
C75 10pF
R133 2.2k
RV11 500
R119 100
RB4 22
RB5 22
RB6 22
AD-Y CLOCK PHASE
B1
AD_DATA_Y0-Y9
006-B4
CK37_MPX0
002-S4,004-AC7
CK74_AD1
002-S5,004-W2
CK37_MPX1
002-S8,004-AC7
004-AC5
CK37_AD_Y0
004-AC6
CK37_AD_Y1
Y9
Y8
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0

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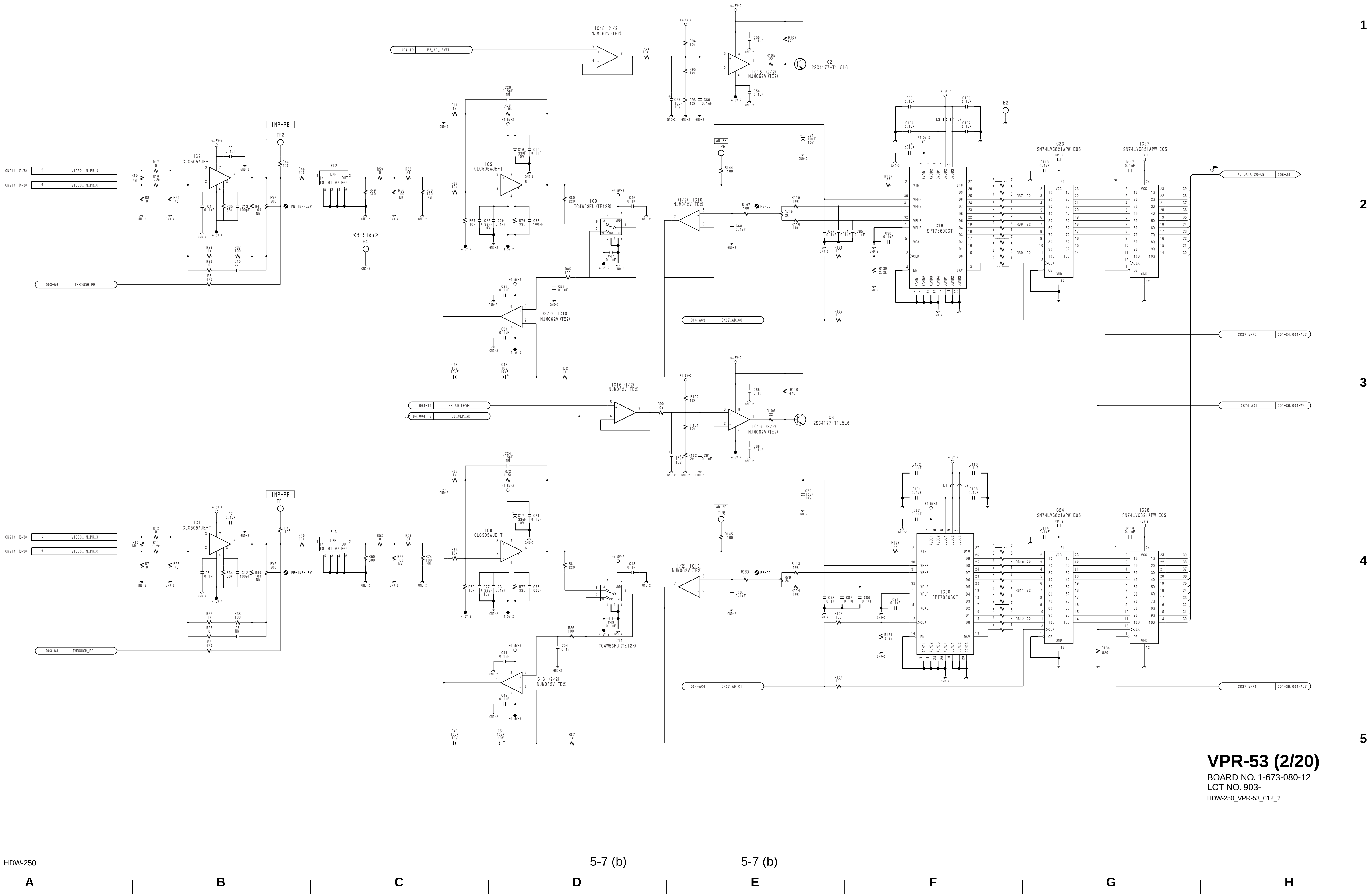
VPR-53 (1/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


1
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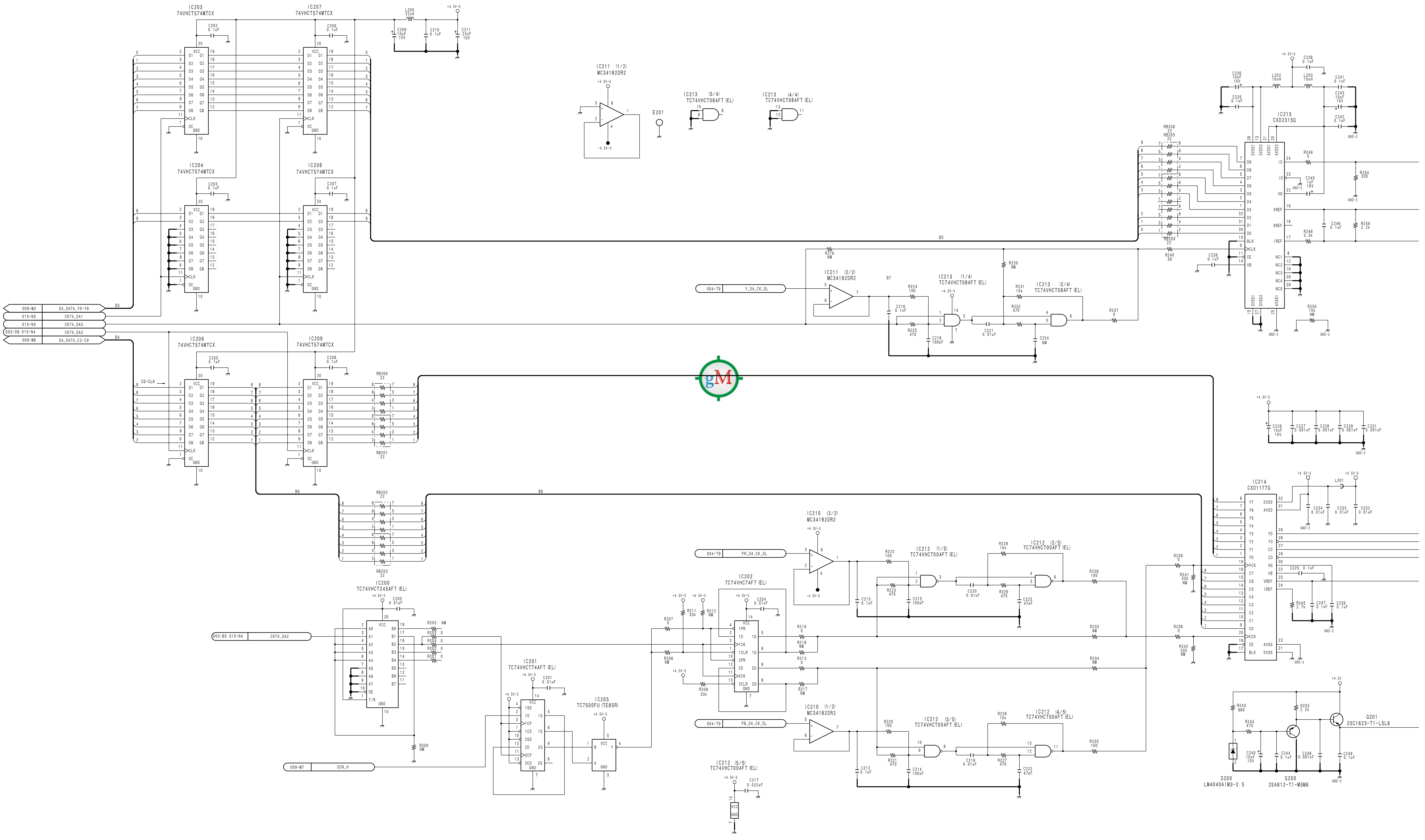
3
4
5
A
B
C
D
E
F
G
H
IC15 (1/2) NJM062V (TE2)
IC15 (2/2) NJM062V (TE2)
Q2 2SC4177-T1L5L6
004-T9 PB_AD_LEVEL
INP-PB
TP2
IC2 CLC505AJE-T
IC5 CLC505AJE-T
FL2 LPF
CN214 (3/8) VIDEO_IN_PB_X
CN214 (4/8) VIDEO_IN_PB_G
PB INP-LEV
<B-Side> E4
003-W6 THROUGH_PB
AD PB TP5
IC9 TC4W53FU (TE12R)
(1/2) IC10 NJM062V (TE2)
(2/2) IC10 NJM062V (TE2)
PB-DC
IC19 SPT7860SCT
IC23 SN74LVC821APW-E05
IC27 SN74LVC821APW-E05
E2
AD_DATA_C0-C9 006-J4
004-AC3 CK37_AD_C0
CK37_MPX0 001-S4.004-AC7
IC16 (1/2) NJM062V (TE2)
IC16 (2/2) NJM062V (TE2)
Q3 2SC4177-T1L5L6
004-T9 PR_AD_LEVEL
004-D4.004-P2 PED_CLP_AD
CK74_AD1 001-S6.004-W2
INP-PR
TP1
IC1 CLC505AJE-T
IC6 CLC505AJE-T
FL3 LPF
CN214 (5/8) VIDEO_IN_PR_X
CN214 (6/8) VIDEO_IN_PR_G
PR-INP-LEV
AD PR TP6
(1/2) IC13 NJM062V (TE2)
IC13 (2/2) NJM062V (TE2)
IC11 TC4W53FU (TE12R)
PR-DC
IC20 SPT7860SCT
IC24 SN74LVC821APW-E05
IC28 SN74LVC821APW-E05
003-W8 THROUGH_PR
004-AC4 CK37_AD_C1
CK37_MPX1 001-S8.004-AC7

VPR-53 (2/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_2

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


1
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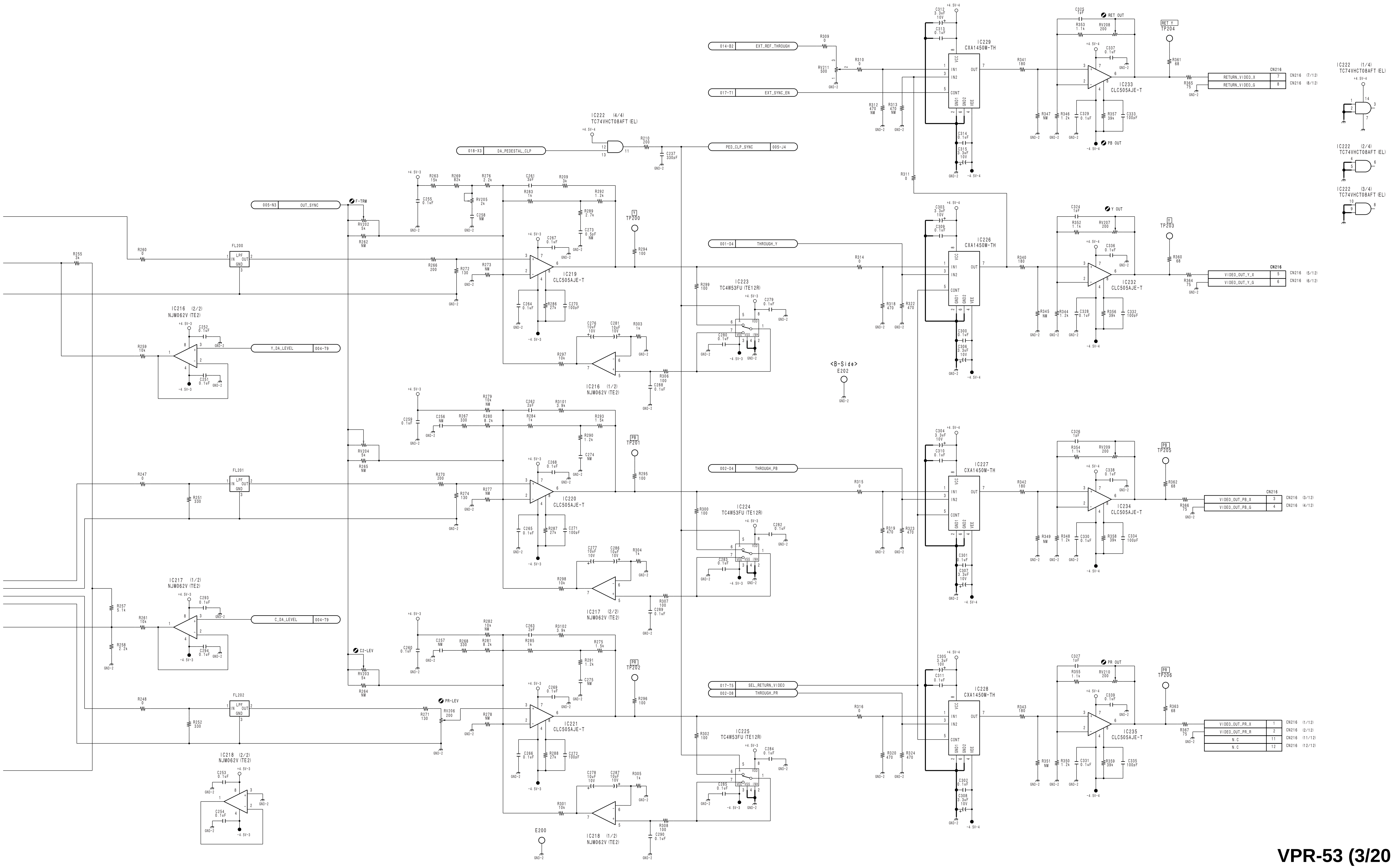
IC203 74VHCT574MTCX
IC207 74VHCT574MTCX
IC204 74VHCT574MTCX
IC208 74VHCT574MTCX
IC206 74VHCT574MTCX
IC209 74VHCT574MTCX
IC211 (1/2) MC34182DR2
IC211 (2/2) MC34182DR2
IC213 (1/4) TC74VHCT08AFT (EL)
IC213 (2/4) TC74VHCT08AFT (EL)
IC213 (3/4) TC74VHCT08AFT (EL)
IC213 (4/4) TC74VHCT08AFT (EL)
IC215 CXD2315Q
IC214 CXD1177Q
IC200 TC74VHCT245AFT (EL)
IC201 TC74VHCT74FT (EL)
IC202 TC74VHC74FT (EL)
IC205 TC7S00FU (TE85R)
IC210 (1/2) MC34182DR2
IC210 (2/2) MC34182DR2
IC212 (1/5) TC74VHCT00AFT (EL)
IC212 (2/5) TC74VHCT00AFT (EL)
IC212 (3/5) TC74VHCT00AFT (EL)
IC212 (4/5) TC74VHCT00AFT (EL)
IC212 (5/5) TC74VHCT00AFT (EL)
Q201 2SC1623-T1-L5L6
Q200 2SA812-T1-M5M6
D200 LM4040AIM3-2.5
DA_DATA_Y0-Y9
CK74_DA1
CK74_DA3
CK74_DA2
DA_DATA_C2-C9
Y_DA_CK_DL
PR_DA_CK_DL
PB_DA_CK_DL
DCN_H

A B C D E F G H


014-B2 EXT_REF_THROUGH
017-T1 EXT_SYNC_EN
018-X3 DA_PEDESTAL_CLP
PED_CLP_SYNC 005-J4
005-N3 OUT_SYNC
Y_DA_LEVEL 004-T9
C_DA_LEVEL 004-T9
001-D4 THROUGH_Y
002-D4 THROUGH_PB
017-T5 SEL_RETURN_VIDEO
002-D8 THROUGH_PR
IC222 (4/4) TC74VHCT08AFT(EL)
IC222 (1/4) TC74VHCT08AFT(EL)
IC222 (2/4) TC74VHCT08AFT(EL)
IC222 (3/4) TC74VHCT08AFT(EL)
IC216 (2/2) NJM062V(TE2)
IC216 (1/2) NJM062V(TE2)
IC217 (1/2) NJM062V(TE2)
IC217 (2/2) NJM062V(TE2)
IC218 (2/2) NJM062V(TE2)
IC218 (1/2) NJM062V(TE2)
IC219 CLC505AJE-T
IC220 CLC505AJE-T
IC221 CLC505AJE-T
IC223 TC4W53FU(TE12R)
IC224 TC4W53FU(TE12R)
IC225 TC4W53FU(TE12R)
IC229 CXA1450M-TH
IC226 CXA1450M-TH
IC227 CXA1450M-TH
IC228 CXA1450M-TH
IC233 CLC505AJE-T
IC232 CLC505AJE-T
IC234 CLC505AJE-T
IC235 CLC505AJE-T
FL200 LPF
FL201 LPF
FL202 LPF
F-TRM
C2-LEV
PR-LEV
RET OUT
Y OUT
PB OUT
PR OUT
TP200 Y
TP201 PB
TP202 PR
TP203 Y
TP204 RET Y
TP205 PB
TP206 PR
<B-Side> E202
E200
RETURN_VIDEO_X 7 CN216 (7/12)
RETURN_VIDEO_G 8 CN216 (8/12)
VIDEO_OUT_Y_X 5 CN216 (5/12)
VIDEO_OUT_Y_G 6 CN216 (6/12)
VIDEO_OUT_PB_X 3 CN216 (3/12)
VIDEO_OUT_PB_G 4 CN216 (4/12)
VIDEO_OUT_PR_X 1 CN216 (1/12)
VIDEO_OUT_PR_R 2 CN216 (2/12)
N.C 11 CN216 (11/12)
N.C 12 CN216 (12/12)
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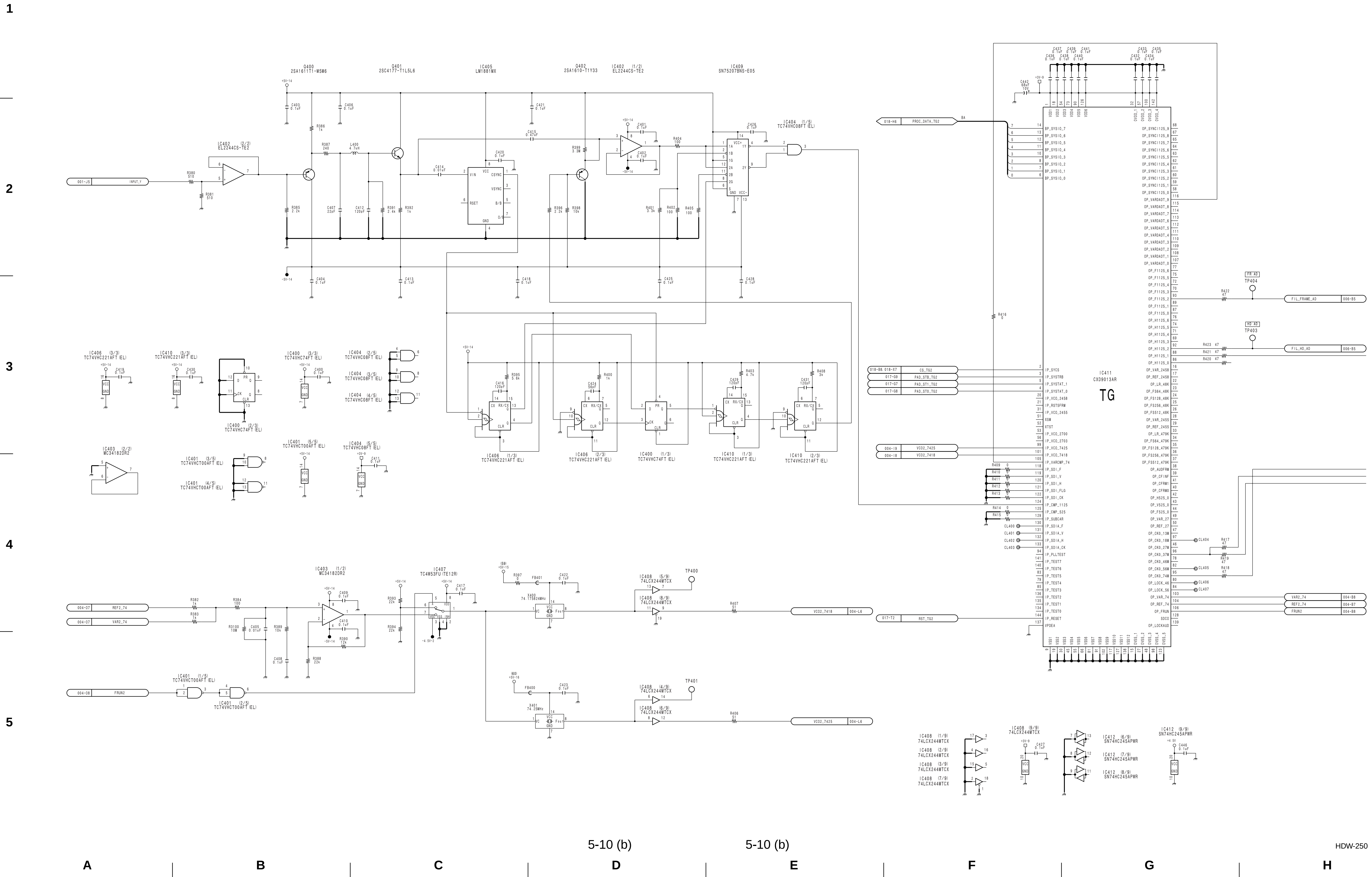
VPR-53 (3/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_3

VPR-53 (4/20)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


1
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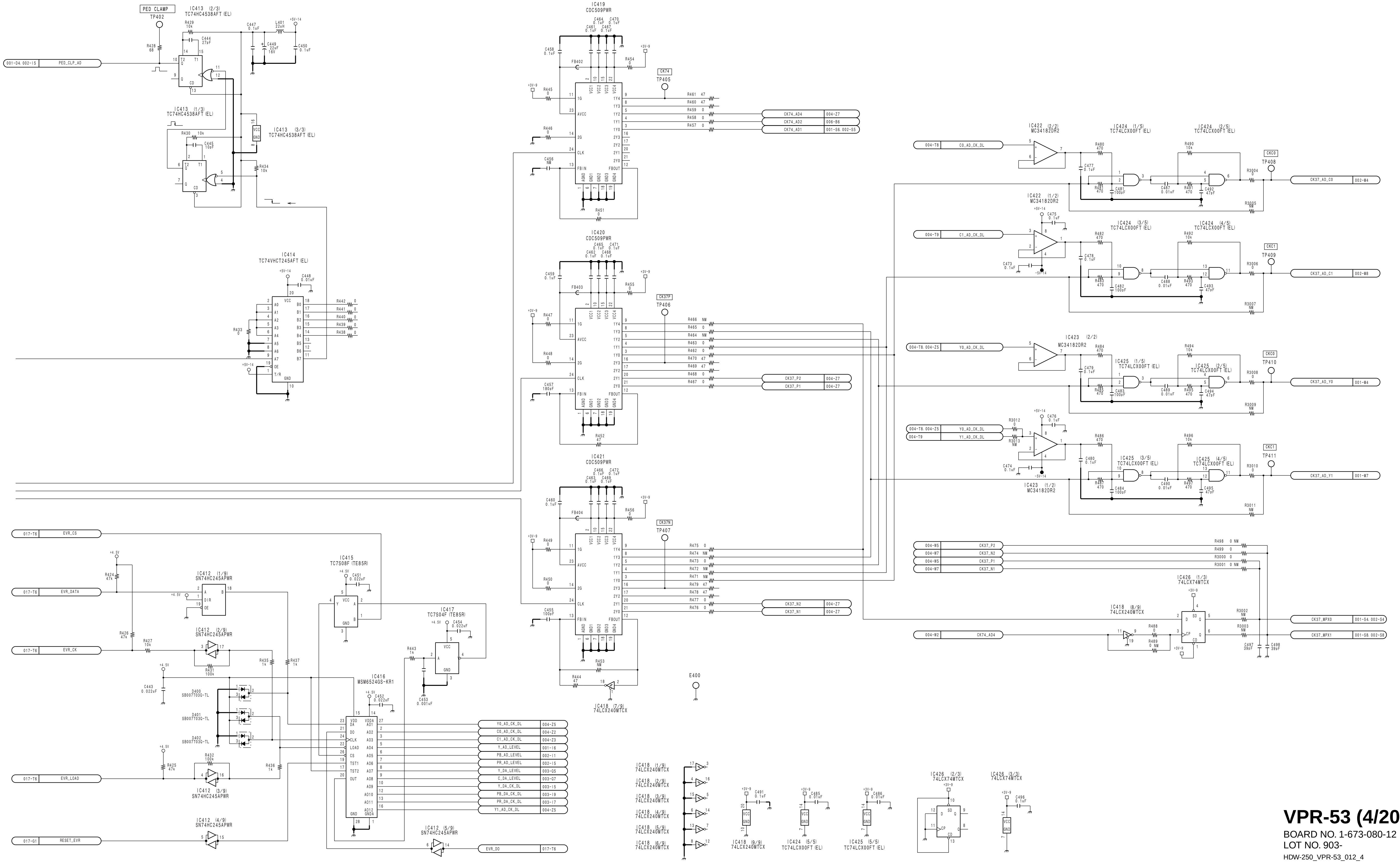
A
B
C
D
E
F
G
H
Q400 2SA1611T1-M5M6
Q401 2SC4177-T1L5L6
IC405 LM1881MX
Q402 2SA1610-T1Y33
IC402 (1/2) EL2244CS-TE2
IC409 SN75207BNS-E05
IC404 (1/5) TC74VHC08FT(EL)
IC402 (2/2) EL2244CS-TE2
001-J5 INPUT_Y
R380 510
R381 510
R386 1k
R387 240
L400 4.7uH
R385 2.2k
C407 22pF
C412 120pF
R391 2.4k
R392 1k
C414 0.01uF
C415 0.47uF
C420 0.1uF
C421 0.1uF
R399 3.3M
R396 2.2k
R398 10k
R404 100
R401 3.3k
R402 100
R405 100
C426 0.1uF
+5V-14
-5V-14
VIN CSYNC VSYNC RESET B/B O/E GND VCC
IC406 (3/3) TC74VHC221AFT(EL)
IC410 (3/3) TC74VHC221AFT(EL)
IC400 (2/3) TC74VHC74FT(EL)
IC400 (3/3) TC74VHC74FT(EL)
IC404 (2/5) TC74VHC08FT(EL)
IC404 (3/5) TC74VHC08FT(EL)
IC404 (4/5) TC74VHC08FT(EL)
IC403 (2/2) MC34182DR2
IC401 (3/5) TC74VHCT00AFT(EL)
IC401 (4/5) TC74VHCT00AFT(EL)
IC401 (5/5) TC74VHCT00AFT(EL)
IC404 (5/5) TC74VHC08FT(EL)
IC406 (1/3) TC74VHC221AFT(EL)
IC406 (2/3) TC74VHC221AFT(EL)
IC400 (1/3) TC74VHC74FT(EL)
IC410 (1/3) TC74VHC221AFT(EL)
IC410 (2/3) TC74VHC221AFT(EL)
R395 5.6k
R400 1k
R403 4.7k
R408 2k
C416 120pF
C424 56pF
C429 120pF
C431 120pF
IC403 (1/2) MC34182DR2
IC407 TC4W53FU(TE12R)
004-07 REF2_74
004-07 VAR2_74
R382 1k
R383 1k
R384 100
R3100 10M
C405 0.01uF
R389 10k
C408 0.1uF
R388 22k
R390 12k
C409 0.1uF
C410 0.1uF
R393 22k
R394 22k
C417 0.1uF
R397 0
FB401
C422 0.1uF
X400 74.175824MHz
IC408 (5/9) 74LCX244MTCX
IC408 (8/9) 74LCX244MTCX
TP400
R407 51
VCO2_7418 004-L6
IC401 (1/5) TC74VHCT00AFT(EL)
IC401 (2/5) TC74VHCT00AFT(EL)
004-08 FRUN2
FB400
C423 0.1uF
X401 74.25MHz
IC408 (4/9) 74LCX244MTCX
IC408 (6/9) 74LCX244MTCX
TP401
R406 51
VCO2_7425 004-L6
018-H6 PROC_DATA_TG2
IC411 CXD9013AR
TG
C442 68uF 10V
018-B8,018-X7 CS_TG2
017-G9 PAD_STB_TG2
017-G7 PAD_ST1_TG2
017-G8 PAD_ST0_TG2
004-19 VCO2_7425
004-18 VCO2_7418
017-T2 RST_TG2
R409 R410 R411 R412 R413 R414 R415 R416
CL400 CL401 CL402 CL403
FR AD TP404
R422 47
FIL_FRAME_AD 006-B5
HD AD TP403
R423 47
R421 47
R420 47
FIL_HD_AD 006-B5
CL404 R417 47 R419 47 R418 47 CL405 CL406 CL407
VAR2_74 004-B8
REF2_74 004-B7
FRUN2 004-B6
IC408 (1/9) 74LCX244MTCX
IC408 (2/9) 74LCX244MTCX
IC408 (3/9) 74LCX244MTCX
IC408 (7/9) 74LCX244MTCX
IC408 (9/9) 74LCX244MTCX
C427 0.1uF
IC412 (6/9) SN74HC245APWR
IC412 (7/9) SN74HC245APWR
IC412 (8/9) SN74HC245APWR
IC412 (9/9) SN74HC245APWR
C446 0.1uF

5-10 (b)


PED_CLAMP
TP402
IC413 (2/3) TC74HC4538AFT (EL)
IC413 (1/3) TC74HC4538AFT (EL)
IC413 (3/3) TC74HC4538AFT (EL)
PED_CLP_AD
IC414 TC74VHCT245AFT (EL)
IC419 CDC509PWR
IC420 CDC509PWR
IC421 CDC509PWR
CK74
TP405
CK37P
TP406
CK37N
TP407
CK74_AD4
CK74_AD2
CK74_AD1
CK37_P2
CK37_P1
CK37_N2
CK37_N1
IC418 (7/9) 74LCX240MTCX
E400
IC422 (2/2) MC34182DR2
IC422 (1/2) MC34182DR2
IC423 (2/2) MC34182DR2
IC423 (1/2) MC34182DR2
IC424 (1/5) TC74LCX00FT (EL)
IC424 (2/5) TC74LCX00FT (EL)
IC424 (3/5) TC74LCX00FT (EL)
IC424 (4/5) TC74LCX00FT (EL)
IC425 (1/5) TC74LCX00FT (EL)
IC425 (2/5) TC74LCX00FT (EL)
IC425 (3/5) TC74LCX00FT (EL)
IC425 (4/5) TC74LCX00FT (EL)
C0_AD_CK_DL
C1_AD_CK_DL
Y0_AD_CK_DL
Y1_AD_CK_DL
CKC0
TP408
CKC1
TP409
CKC0
TP410
CKC1
TP411
CK37_AD_C0
CK37_AD_C1
CK37_AD_Y0
CK37_AD_Y1
IC426 (1/3) 74LCX74MTCX
IC418 (8/9) 74LCX240MTCX
CK37_MPX0
CK37_MPX1
EVR_CS
EVR_DATA
EVR_CK
EVR_LOAD
RESET_EVR
IC412 (1/9) SN74HC245APWR
IC412 (2/9) SN74HC245APWR
IC412 (3/9) SN74HC245APWR
IC412 (4/9) SN74HC245APWR
IC412 (5/9) SN74HC245APWR
IC415 TC7S08F (TE85R)
IC417 TC7S04F (TE85R)
IC416 MSM6524GS-KR1
D400 SB007T03Q-TL
D401 SB007T03Q-TL
D402 SB007T03Q-TL
Y0_AD_CK_DL
C0_AD_CK_DL
C1_AD_CK_DL
Y_AD_LEVEL
PB_AD_LEVEL
PR_AD_LEVEL
Y_DA_LEVEL
C_DA_LEVEL
Y_DA_CK_DL
PB_DA_CK_DL
PR_DA_CK_DL
Y1_AD_CK_DL
EVR_DO
IC418 (1/9) 74LCX240MTCX
IC418 (2/9) 74LCX240MTCX
IC418 (3/9) 74LCX240MTCX
IC418 (4/9) 74LCX240MTCX
IC418 (5/9) 74LCX240MTCX
IC418 (6/9) 74LCX240MTCX
IC418 (9/9) 74LCX240MTCX
IC424 (5/5) TC74LCX00FT (EL)
IC425 (5/5) TC74LCX00FT (EL)
IC426 (2/3) 74LCX74MTCX
IC426 (3/3) 74LCX74MTCX
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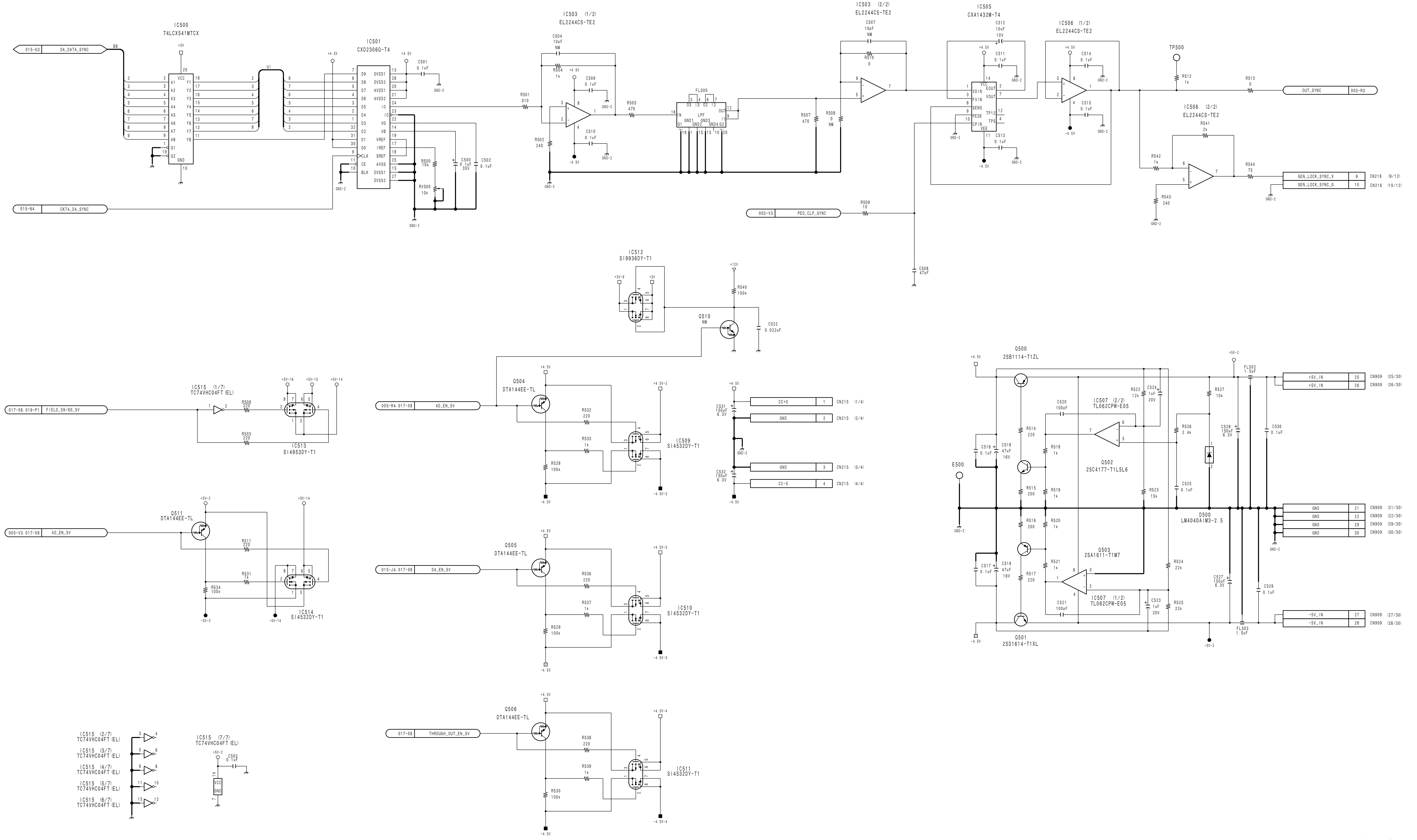
VPR-53 (4/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_4

http://getMANUAL.com

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

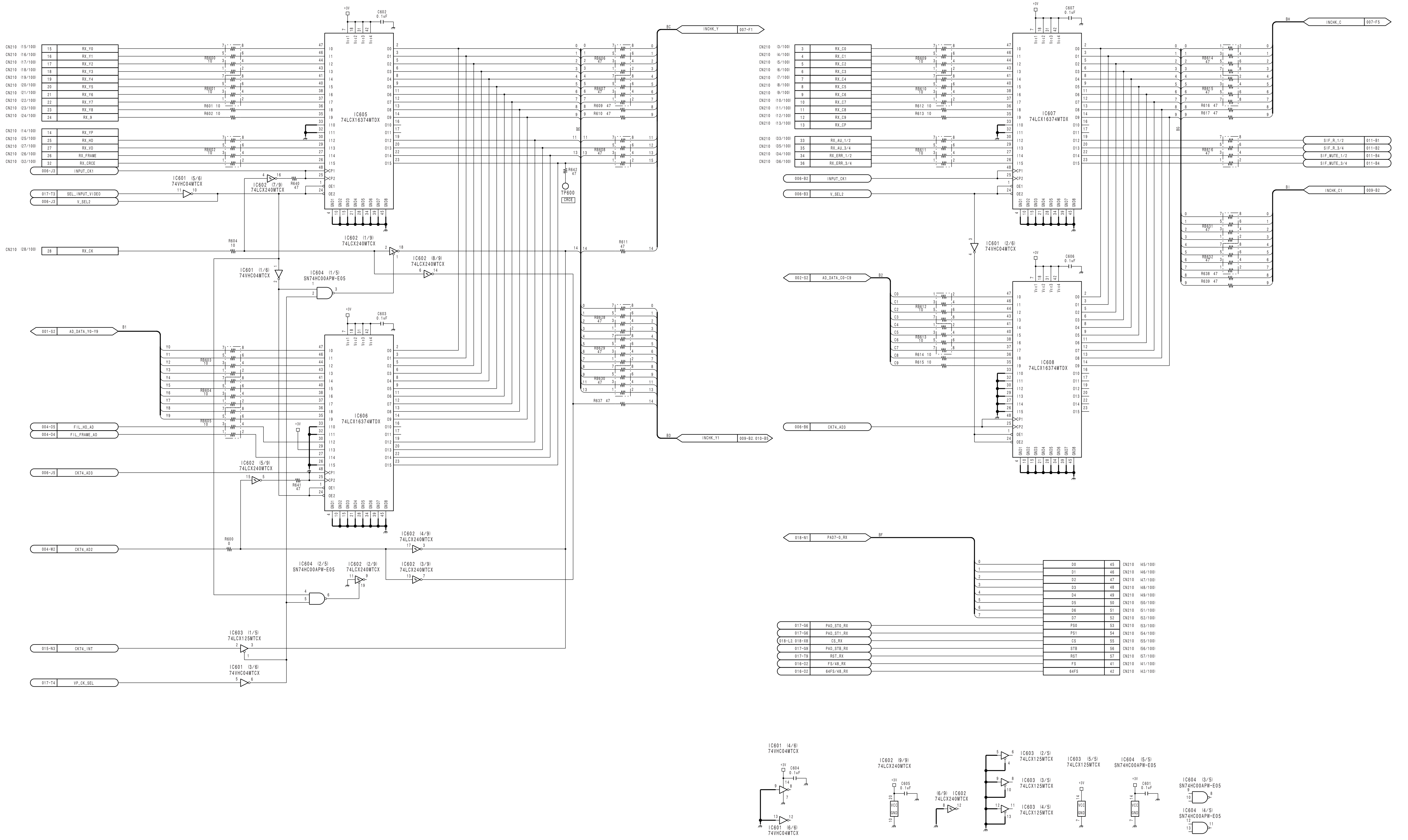

IC500
74LCX541MTCX
IC501
CXD2306Q-T4
IC503 (1/2)
EL2244CS-TE2
IC503 (2/2)
EL2244CS-TE2
IC505
CXA1432M-T4
IC506 (1/2)
EL2244CS-TE2
IC506 (2/2)
EL2244CS-TE2
FL500
TP500
015-G3
DA_DATA_SYNC
015-N4
CK74_DA_SYNC
003-V3
PED_CLP_SYNC
OUT_SYNC
003-R3
GEN_LOCK_SYNC_X
GEN_LOCK_SYNC_G
CN216 (9/12)
CN216 (10/12)
IC512
SI9936DY-T1
Q510
NM
IC515 (1/7)
TC74VHC04FT(EL)
017-X8, 019-P1
FIELD_59/60_5V
IC513
SI4953DY-T1
Q504
DTA144EE-TL
005-R4, 017-X8
AD_EN_5V
IC509
SI4532DY-T1
CC+5
GND
GND
CC-5
CN215 (1/4)
CN215 (2/4)
CN215 (3/4)
CN215 (4/4)
Q511
DTA144EE-TL
005-V3, 017-X8
AD_EN_5V
IC514
SI4532DY-T1
Q505
DTA144EE-TL
015-J4, 017-X8
DA_EN_5V
IC510
SI4532DY-T1
Q506
DTA144EE-TL
017-X8
THROUGH_OUT_EN_5V
IC511
SI4532DY-T1
IC515 (2/7) TC74VHC04FT(EL)
IC515 (3/7) TC74VHC04FT(EL)
IC515 (4/7) TC74VHC04FT(EL)
IC515 (5/7) TC74VHC04FT(EL)
IC515 (6/7) TC74VHC04FT(EL)
IC515 (7/7) TC74VHC04FT(EL)
Q500
2SB1114-T1ZL
Q501
2SD1614-T1XL
Q502
2SC4177-T1L5L6
Q503
2SA1611-T1M7
IC507 (1/2) TL062CPW-E05
IC507 (2/2) TL062CPW-E05
D500
LM4040AIM3-2.5
E500
FL502 1.5uF
FL503 1.5uF
+5V_IN
+5V_IN
GND
GND
GND
GND
-5V_IN
-5V_IN
CN909 (25/30)
CN909 (26/30)
CN909 (21/30)
CN909 (22/30)
CN909 (29/30)
CN909 (30/30)
CN909 (27/30)
CN909 (28/30)
+4.5V
-4.5V
+5V-2
-5V-2
GND-2
1
2
3
4
5
A
B
C
D
E
F
G
H

VPR-53 (5/20)

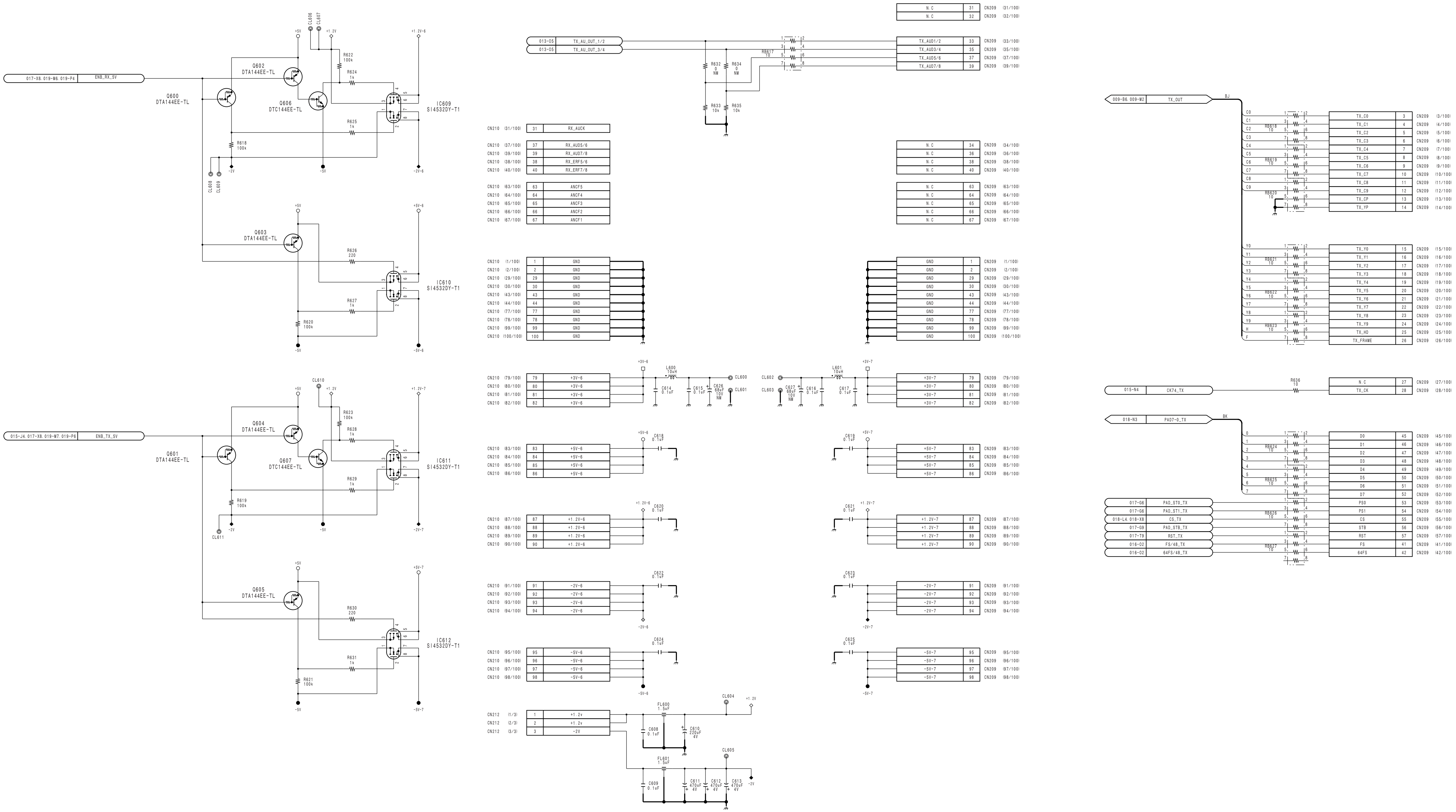
BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_5

VPR-53 (6/20)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC605 74LCX16374MTDX
IC606 74LCX16374MTDX
IC607 74LCX16374MTDX
IC608 74LCX16374MTDX
IC601 (5/6) 74VHC04MTCX
IC601 (1/6) 74VHC04MTCX
IC601 (2/6) 74VHC04MTCX
IC601 (3/6) 74VHC04MTCX
IC601 (4/6) 74VHC04MTCX
IC601 (6/6) 74VHC04MTCX
IC602 (7/9) 74LCX240MTCX
IC602 (1/9) 74LCX240MTCX
IC602 (8/9) 74LCX240MTCX
IC602 (5/9) 74LCX240MTCX
IC602 (4/9) 74LCX240MTCX
IC602 (2/9) 74LCX240MTCX
IC602 (3/9) 74LCX240MTCX
IC602 (9/9) 74LCX240MTCX
IC602 (6/9) 74LCX240MTCX
IC603 (1/5) 74LCX125MTCX
IC603 (2/5) 74LCX125MTCX
IC603 (3/5) 74LCX125MTCX
IC603 (4/5) 74LCX125MTCX
IC603 (5/5) 74LCX125MTCX
IC604 (1/5) SN74HC00APW-E05
IC604 (2/5) SN74HC00APW-E05
IC604 (3/5) SN74HC00APW-E05
IC604 (4/5) SN74HC00APW-E05
IC604 (5/5) SN74HC00APW-E05
TP600 CRCE
INCHK_Y
INCHK_Y1
INCHK_C
INCHK_C1
INPUT_CK1
SEL_INPUT_VIDEO
V_SEL2
RX_CK
AD_DATA_Y0-Y9
AD_DATA_C0-C9
FIL_HD_AD
FIL_FRAME_AD
CK74_AD3
CK74_AD2
CK74_INT
VP_CK_SEL
PAD7-0_RX
PAD_ST0_RX
PAD_ST1_RX
CS_RX
PAD_STB_RX
RST_RX
FS/48_RX
64FS/48_RX
SIF_R_1/2
SIF_R_3/4
SIF_MUTE_1/2
SIF_MUTE_3/4
RX_AU_1/2
RX_AU_3/4
RX_ERR_1/2
RX_ERR_3/4
CN210

5-14 (b)


Q600
DTA144EE-TL
Q601
DTA144EE-TL
Q602
DTA144EE-TL
Q603
DTA144EE-TL
Q604
DTA144EE-TL
Q605
DTA144EE-TL
Q606
DTC144EE-TL
Q607
DTC144EE-TL
IC609
SI4532DY-T1
IC610
SI4532DY-T1
IC611
SI4532DY-T1
IC612
SI4532DY-T1
ENB_RX_5V
ENB_TX_5V
TX_AU_OUT_1/2
TX_AU_OUT_3/4
RX_AUCK
TX_OUT
CK74_TX
PAD7-0_TX
PAD_ST0_TX
PAD_ST1_TX
CS_TX
PAD_STB_TX
RST_TX
FS/48_TX
64FS/48_TX
CN209
CN210
CN212
L600
L601
FL600
FL601
CL600
CL601
CL602
CL603
CL604
CL605
CL606
CL607
CL608
CL609
CL610
CL611

1
2
3
4
5

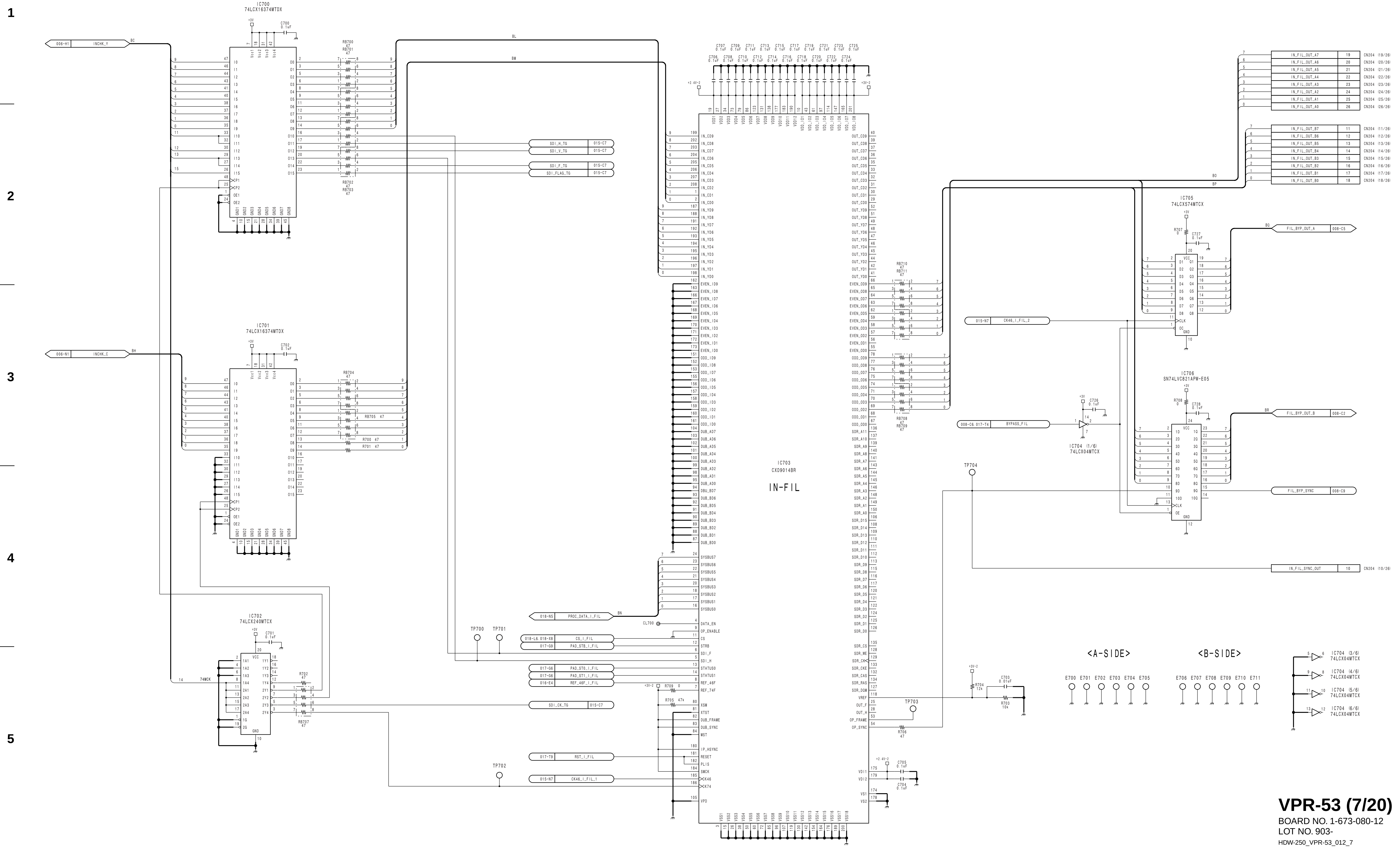
VPR-53 (6/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_6

I J K L M N O P

VPR-53 (7/20)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


1
2
3
4
5
IC700
74LCX16374MTDX
IC701
74LCX16374MTDX
IC702
74LCX240MTCX
IC703
CXD9014BR
IN-FIL
IC704 (1/6)
74LCX04MTCX
IC705
74LCX574MTCX
IC706
SN74LVC821APW-E05
IC704 (3/6)
74LCX04MTCX
IC704 (4/6)
74LCX04MTCX
IC704 (5/6)
74LCX04MTCX
IC704 (6/6)
74LCX04MTCX
006-H1 INCHK_Y
006-N1 INCHK_C
SDI_H_TG 015-C7
SDI_V_TG 015-C7
SDI_F_TG 015-C7
SDI_FLAG_TG 015-C7
018-N5 PROC_DATA_I_FIL
018-L6, 018-X8 CS_I_FIL
017-G9 PAD_STB_I_FIL
017-G6 PAD_ST0_I_FIL
017-G6 PAD_ST1_I_FIL
016-E4 REF_46F_I_FIL
SDI_CK_TG 015-C7
017-T9 RST_I_FIL
015-N7 CK46_I_FIL_1
015-N7 CK46_I_FIL_2
008-C6, 017-T4 BYPASS_FIL
FIL_BYP_OUT_A 008-C5
FIL_BYP_OUT_B 008-C2
FIL_BYP_SYNC 008-C9
IN_FIL_SYNC_OUT 10 CN204 (10/26)
TP700
TP701
TP702
TP703
TP704
CL700
<A-SIDE>
<B-SIDE>
E700 E701 E702 E703 E704 E705
E706 E707 E708 E709 E710 E711

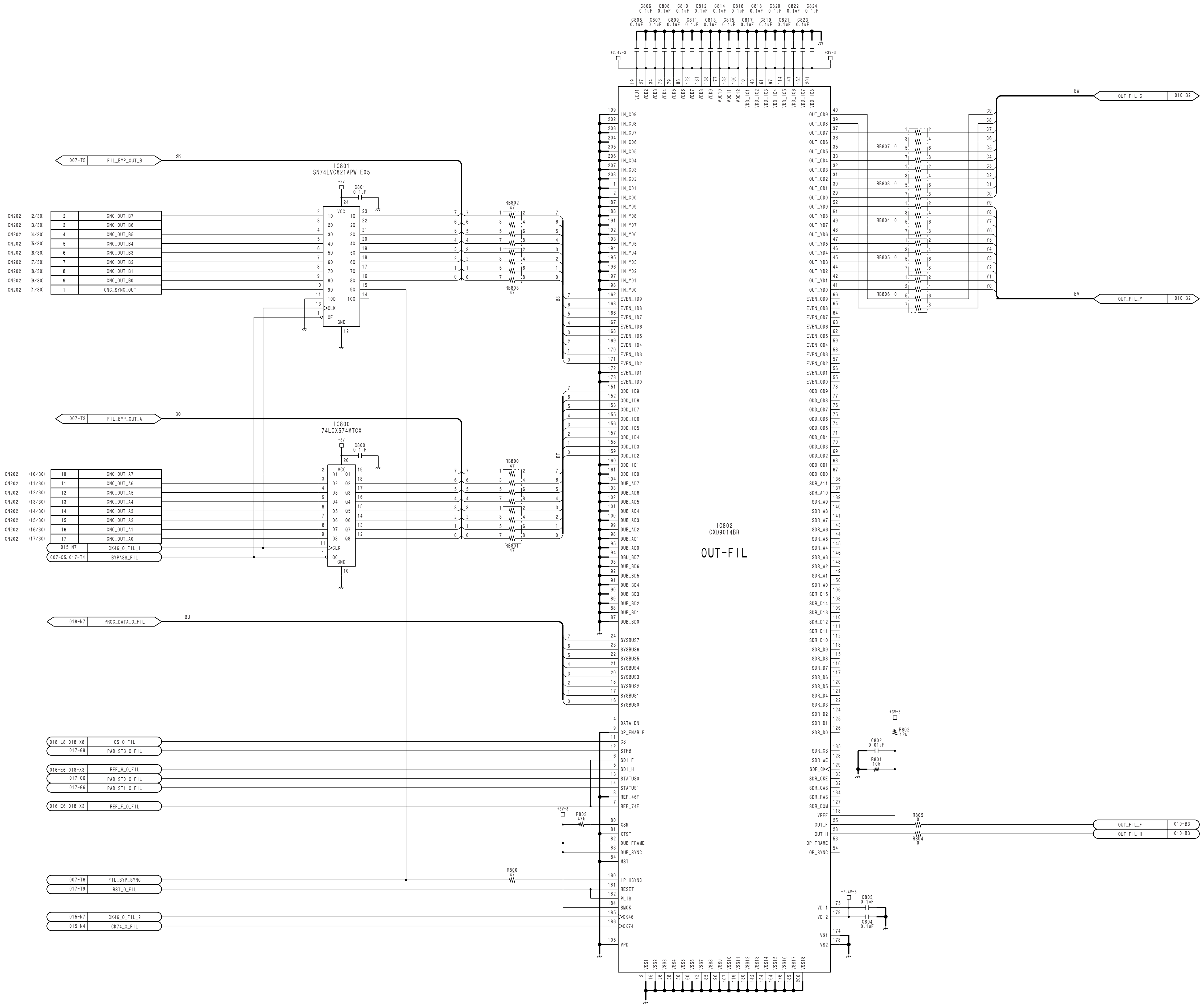
VPR-53 (7/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_7

5-16 (b)

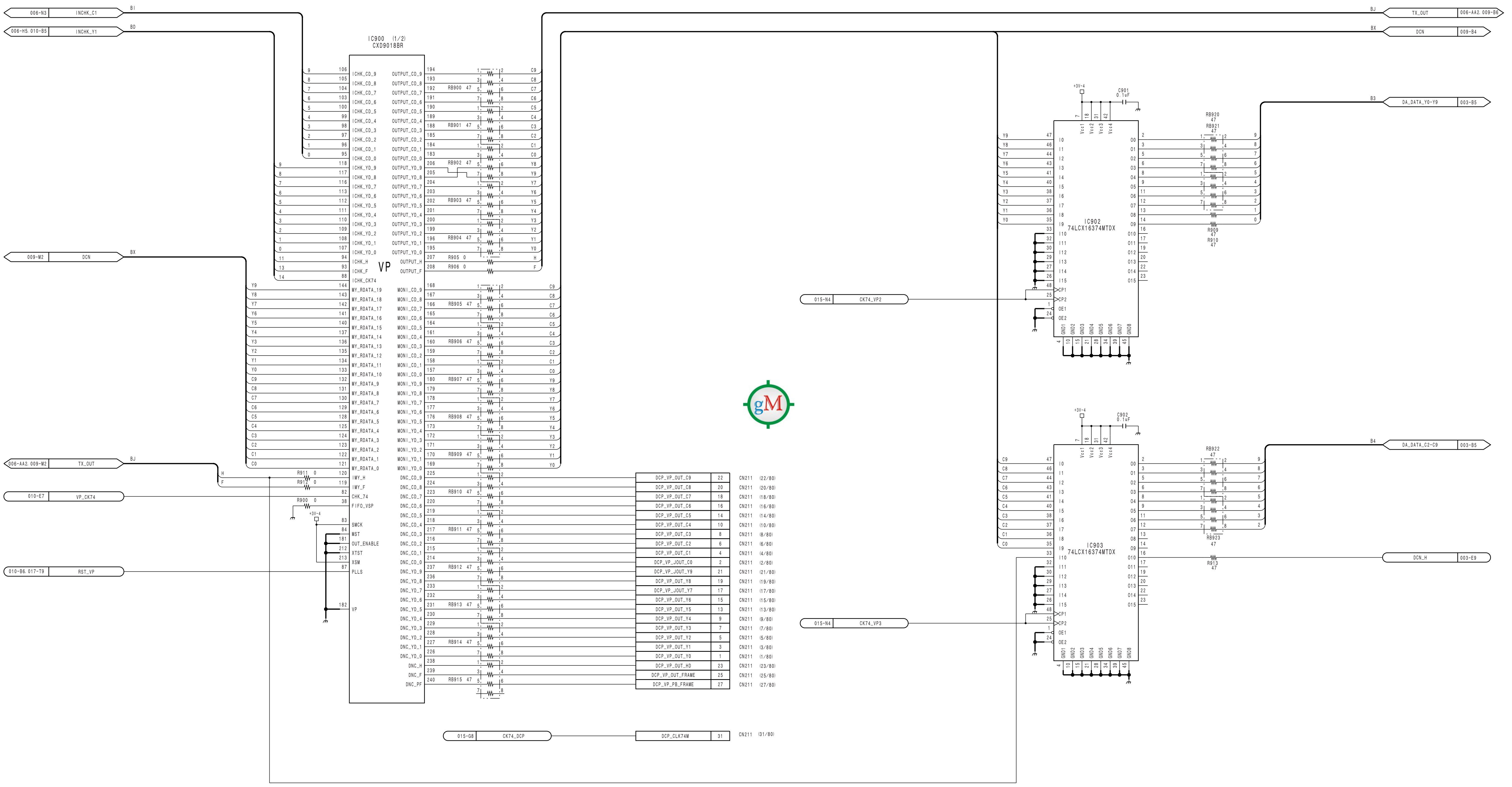
A B C D E F G H

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC802
CXD9014BR
OUT-FIL
IC801
SN74LVC821APW-E05
IC800
74LCX574MTCX
007-T5 FIL_BYP_OUT_B
007-T3 FIL_BYP_OUT_A
018-N7 PROC_DATA_O_FIL
CNC_OUT_B7
CNC_OUT_B6
CNC_OUT_B5
CNC_OUT_B4
CNC_OUT_B3
CNC_OUT_B2
CNC_OUT_B1
CNC_OUT_B0
CNC_SYNC_OUT
CNC_OUT_A7
CNC_OUT_A6
CNC_OUT_A5
CNC_OUT_A4
CNC_OUT_A3
CNC_OUT_A2
CNC_OUT_A1
CNC_OUT_A0
015-N7 CK46_O_FIL_1
007-Q5, 017-T4 BYPASS_FIL
018-L8, 018-X6 CS_O_FIL
017-G9 PAD_STB_O_FIL
016-E6, 018-X3 REF_H_O_FIL
017-G6 PAD_ST0_O_FIL
017-G6 PAD_ST1_O_FIL
016-E6, 018-X3 REF_F_O_FIL
007-T6 FIL_BYP_SYNC
017-T9 RST_O_FIL
015-N7 CK46_O_FIL_2
015-N4 CK74_O_FIL
OUT_FIL_C 010-B2
OUT_FIL_Y 010-B2
OUT_FIL_F 010-B3
OUT_FIL_H 010-B3
RB800 47
RB801 47
RB802 47
RB803 47
RB804 0
RB805 0
RB806 0
RB807 0
RB808 0
R800 47
R801 10k
R802 12k
R803 47k
R804 0
R805 0
C800 0.1uF
C801 0.1uF
C802 0.01uF
C803 0.1uF
C804 0.1uF
C805–C824 0.1uF
+2.4V-3
+3V-3
+3V
BR
BQ
BU
BS
BT
BW
BV
1
2
3
4
5
A
B
C
D
E
F
G
H

VPR-53 (8/20)
BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_8

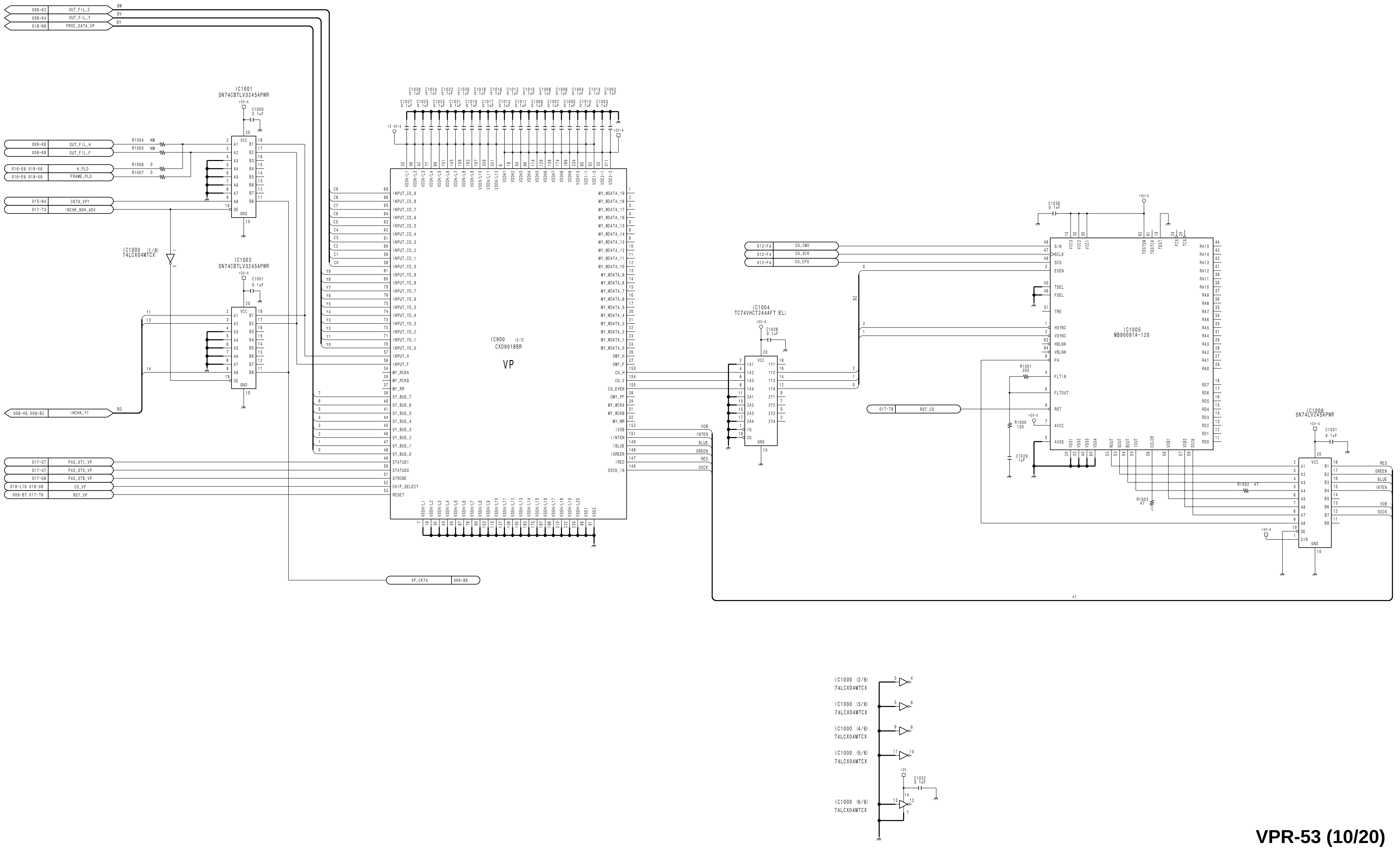
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


1
2
3
4
5
006-N3 INCHK_C1
006-H5, 010-B5 INCHK_Y1
009-M2 DCN
006-AA2, 009-M2 TX_OUT
010-E7 VP_CK74
010-B6, 017-T9 RST_VP
IC900 (1/2)
CXD9018BR
VP
RB900 47
RB901 47
RB902 47
RB903 47
RB904 47
R905 0
R906 0
RB905 47
RB906 47
RB907 47
RB908 47
RB909 47
RB910 47
RB911 47
RB912 47
RB913 47
RB914 47
RB915 47
R911 0
R910 0
R900 0
+3V-4
CN211
015-G8 CK74_DCP
DCP_CLK74M
TX_OUT 006-AA2, 009-B6
DCN 009-B4
DA_DATA_Y0-Y9 003-B5
DA_DATA_C2-C9 003-B5
DCN_H 003-E9
015-N4 CK74_VP2
015-N4 CK74_VP3
C901 0.1uF
C902 0.1uF
IC902
74LCX16374MTDX
IC903
74LCX16374MTDX
RB920 47
RB921 47
RB922 47
RB923 47
R909 47
R910 47
R913 47

VPR-53 (9/20)
BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_9

A B C D E F G H

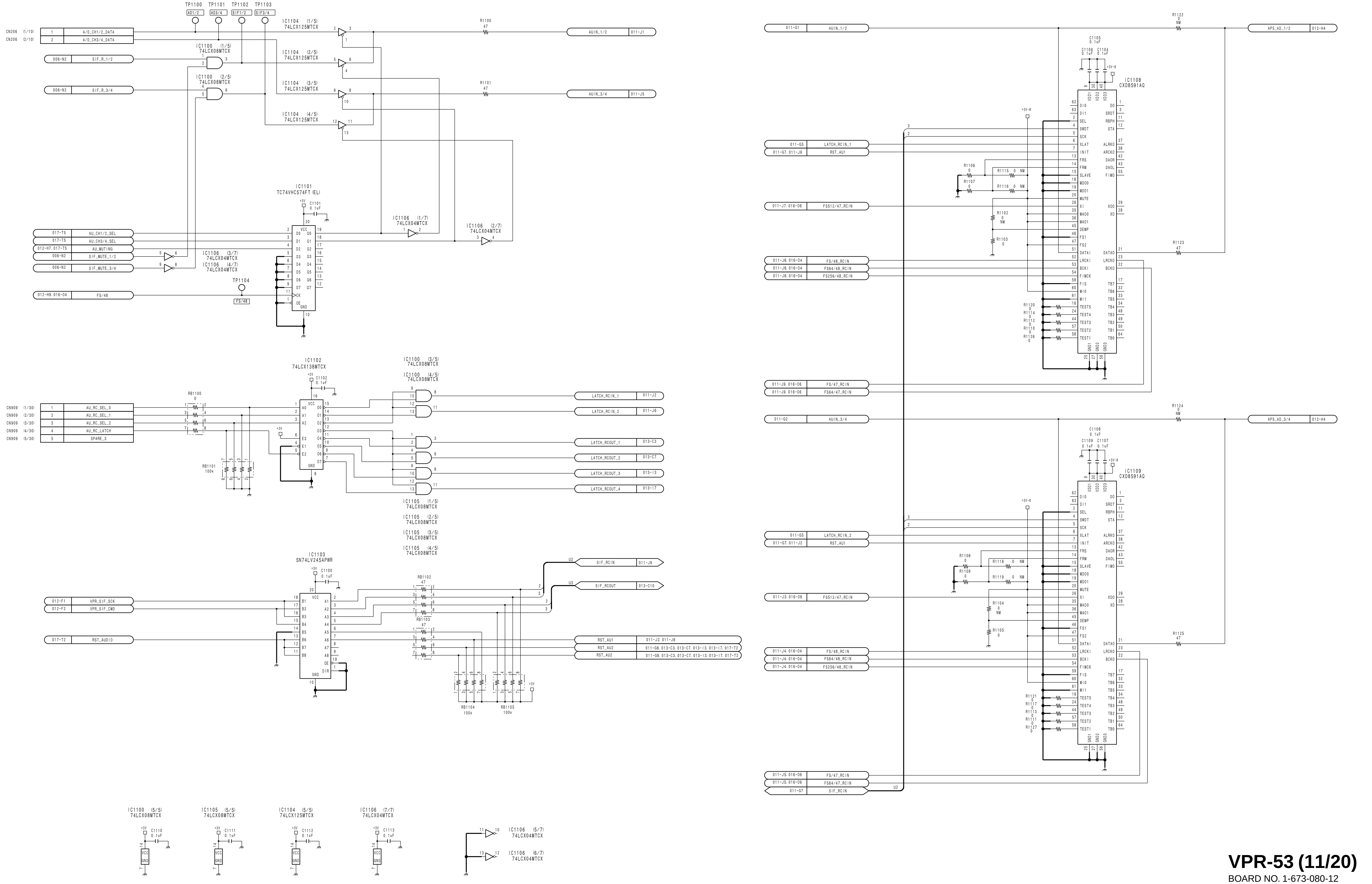
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


1
2
3
4
5
008-K2 OUT_FIL_C
008-K4 OUT_FIL_Y
018-N9 PROC_DATA_VP
BW
BV
BY
IC1001
SN74CBTLV3245APWR
C1000 0.1uF
008-K8 OUT_FIL_H
008-K8 OUT_FIL_F
016-E6, 018-X6 H_PLD
016-E6, 018-X6 FRAME_PLD
R1004 NM
R1005 NM
R1006 0
R1007 0
015-N4 CK74_VP1
017-T3 INCHK_90H_ADV
IC1000 (1/6)
74LCX04MTCX
IC1002
SN74CBTLV3245APWR
C1001 0.1uF
008-H5, 009-B2 INCHK_Y1
B0
017-G7 PAD_ST1_VP
017-G7 PAD_ST0_VP
017-G9 PAD_STB_VP
018-L10, 018-X8 CS_VP
009-B7, 017-T9 RST_VP
VP_CK74 009-B6
IC900 (2/2)
CXD9018BR
VP
+2.4V-4
+3V-4
IC1004
TC74VHCT244AFT (EL)
C1028 0.1uF
012-F4 CG_CMD
012-F4 CG_SCK
012-F4 CG_CPS
017-T8 RST_CG
IC1005
MB90091A-120
C1030 0.1uF
+5V-4
R1001 200
R1000 150
C1029 1uF
IC1006
SN74LV245APWR
C1031 0.1uF
R1002 47
R1003 47
RED
GREEN
BLUE
INTEN
VOB
DOCK
IC1000 (2/6)
74LCX04MTCX
IC1000 (3/6)
74LCX04MTCX
IC1000 (4/6)
74LCX04MTCX
IC1000 (5/6)
74LCX04MTCX
C1032 0.1uF
IC1000 (6/6)
74LCX04MTCX

VPR-53 (10/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_10

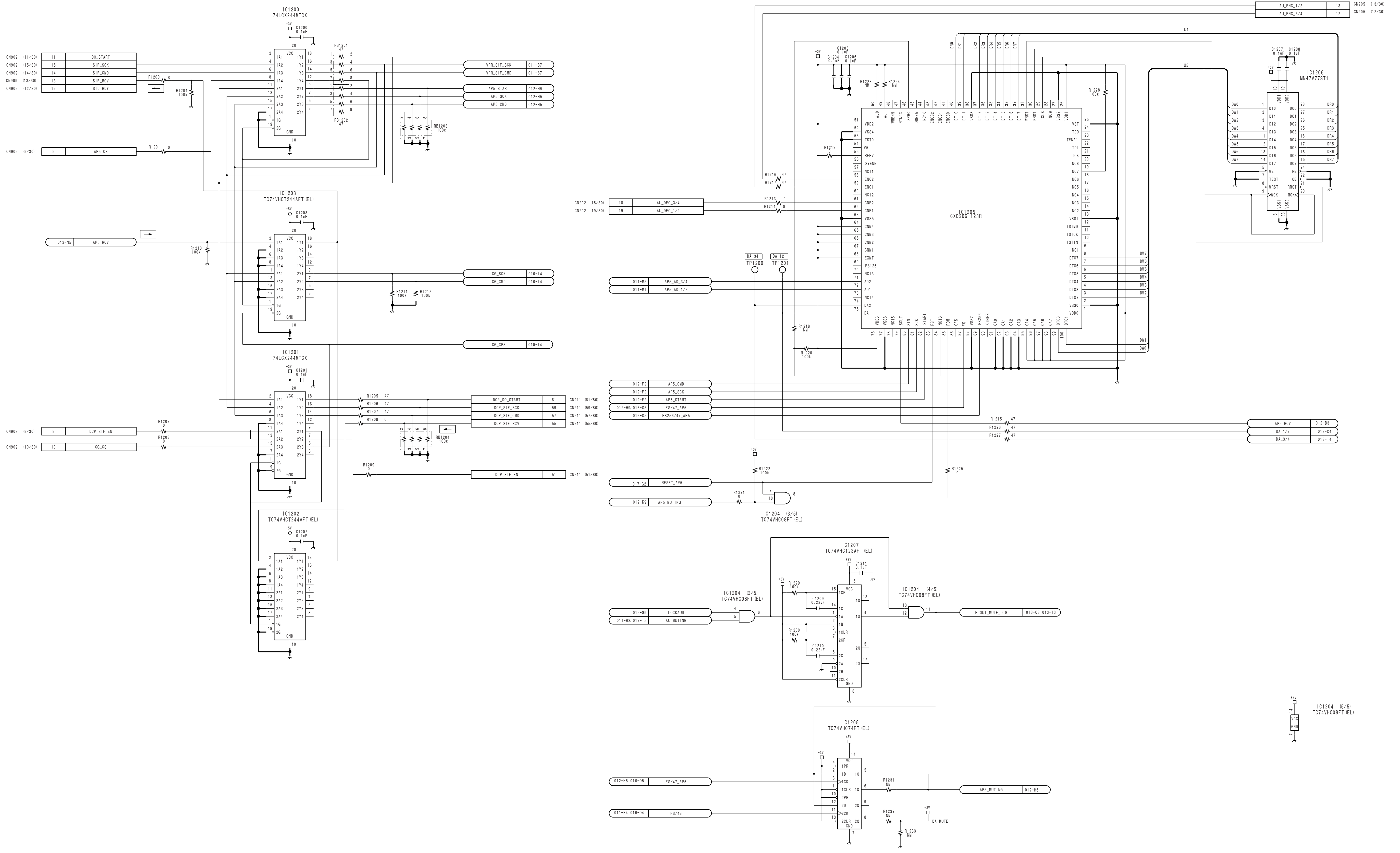
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


1
2
3
4
5
TP1100 TP1101 TP1102 TP1103
AD1/2 AD3/4 SIF1/2 SIF3/4
CN206 (1/10) A/D_CH1/2_DATA
CN206 (2/10) A/D_CH3/4_DATA
006-N2 SIF_R_1/2
006-N2 SIF_R_3/4
IC1100 (1/5) 74LCX08MTCX
IC1100 (2/5) 74LCX08MTCX
IC1104 (1/5) 74LCX125MTCX
IC1104 (2/5) 74LCX125MTCX
IC1104 (3/5) 74LCX125MTCX
IC1104 (4/5) 74LCX125MTCX
R1100 47
R1101 47
AUIN_1/2 011-J1
AUIN_3/4 011-J5
IC1101 TC74VHC574FT (EL)
C1101 0.1uF
017-T5 AU_CH1/2_SEL
017-T5 AU_CH3/4_SEL
012-H7, 017-T5 AU_MUTING
006-N2 SIF_MUTE_1/2
006-N2 SIF_MUTE_3/4
012-H9, 016-O4 FS/48
TP1104 FS/48
IC1106 (1/7) 74LCX04MTCX
IC1106 (2/7) 74LCX04MTCX
IC1106 (3/7) 74LCX04MTCX
IC1106 (4/7) 74LCX04MTCX
IC1102 74LCX138MTCX
C1102 0.1uF
RB1100 0
RB1101 100k
CN909 (1/30) AU_RC_SEL_0
CN909 (2/30) AU_RC_SEL_1
CN909 (3/30) AU_RC_SEL_2
CN909 (4/30) AU_RC_LATCH
CN909 (5/30) SPARE_3
IC1100 (3/5) 74LCX08MTCX
IC1100 (4/5) 74LCX08MTCX
LATCH_RCIN_1 011-J2
LATCH_RCIN_2 011-J6
LATCH_RCOUT_1 013-C3
LATCH_RCOUT_2 013-C7
LATCH_RCOUT_3 013-I3
LATCH_RCOUT_4 013-I7
IC1105 (1/5) 74LCX08MTCX
IC1105 (2/5) 74LCX08MTCX
IC1105 (3/5) 74LCX08MTCX
IC1105 (4/5) 74LCX08MTCX
IC1103 SN74LV245APWR
C1100 0.1uF
012-F1 VPR_SIF_SCK
012-F2 VPR_SIF_CMD
017-T2 RST_AUDIO
RB1102 47
RB1103 47
RB1104 100k
RB1105 100k
SIF_RCIN 011-J9
SIF_RCOUT 013-C10
RST_AU1 011-J2, 011-J6
RST_AU2 011-G8, 013-C3, 013-C7, 013-I3, 013-I7, 017-T2
RST_AU2 011-G8, 013-C3, 013-C7, 013-I3, 013-I7, 017-T2
IC1100 (5/5) 74LCX08MTCX
IC1105 (5/5) 74LCX08MTCX
IC1104 (5/5) 74LCX125MTCX
IC1106 (7/7) 74LCX04MTCX
C1110 0.1uF
C1111 0.1uF
C1112 0.1uF
C1113 0.1uF
IC1106 (5/7) 74LCX04MTCX
IC1106 (6/7) 74LCX04MTCX
011-G1 AUIN_1/2
R1122 0 NM
APS_AD_1/2 012-H4
C1105 0.1uF
C1106 0.1uF
C1104 0.1uF
IC1108 CXD8591AQ
011-G5 LATCH_RCIN_1
011-G7, 011-J6 RST_AU1
R1106 0
R1107 0
R1115 0 NM
R1116 0 NM
R1102 0 NM
R1103 0
011-J7, 016-O6 FS512/47_RCIN
011-J8, 016-O4 FS/48_RCIN
011-J8, 016-O4 FS64/48_RCIN
011-J8, 016-O4 FS256/48_RCIN
R1123 47
R1120 0
R1114 0
R1112 0
R1110 0
R1126 0
011-J9, 016-O6 FS/47_RCIN
011-J9, 016-O6 FS64/47_RCIN
011-G2 AUIN_3/4
R1124 0 NM
APS_AD_3/4 012-H4
C1108 0.1uF
C1109 0.1uF
C1107 0.1uF
IC1109 CXD8591AQ
011-G5 LATCH_RCIN_2
011-G7, 011-J2 RST_AU1
R1108 0
R1109 0
R1118 0 NM
R1119 0 NM
R1104 0 NM
R1105 0
011-J3, 016-O6 FS512/47_RCIN
011-J4, 016-O4 FS/48_RCIN
011-J4, 016-O4 FS64/48_RCIN
011-J4, 016-O4 FS256/48_RCIN
R1125 47
R1121 0
R1117 0
R1113 0
R1111 0
R1127 0
011-J5, 016-O6 FS/47_RCIN
011-J5, 016-O6 FS64/47_RCIN
011-G7 SIF_RCIN
DI0 DI1 SEL SMDT SCK XLAT INIT FRS FRM SLAVE MOD0 MOD1 MUTE XI MAO0 MAO1 DEMP FS1 FS2 DATAI LRCKI BCKI FIMCK FIS MI0 MI1 TEST5 TEST4 TEST3 TEST2 TEST1
DO SRDT RBPH STA ALRKO ARCKO DAOR DAOL FIMO XOO XO DATAO LRCKO BCKO TB7 TB6 TB5 TB4 TB3 TB2 TB1 TB0
VDD1 VDD2 VDD3 GND1 GND2 GND3
+3V-8
A
B
C
D
E
F
G
H

VPR-53 (11/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_11

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC1200
74LCX244MTCX
IC1203
TC74VHCT244AFT (EL)
IC1201
74LCX244MTCX
IC1202
TC74VHCT244AFT (EL)
IC1205
CXD2086-123R
IC1206
MN47V77ST1
IC1204 (3/5)
TC74VHC08FT (EL)
IC1204 (2/5)
TC74VHC08FT (EL)
IC1204 (4/5)
TC74VHC08FT (EL)
IC1204 (5/5)
TC74VHC08FT (EL)
IC1207
TC74VHC123AFT (EL)
IC1208
TC74VHC74FT (EL)
CN909 (11/30) DO_START
CN909 (15/30) SIF_SCK
CN909 (14/30) SIF_CMD
CN909 (13/30) SIF_RCV
CN909 (12/30) SIO_RDY
CN909 (9/30) APS_CS
CN909 (8/30) DCP_SIF_EN
CN909 (10/30) CG_CS
VPR_SIF_SCK 011-B7
VPR_SIF_CMD 011-B7
APS_START 012-H5
APS_SCK 012-H5
APS_CMD 012-H5
012-N5 APS_RCV
CG_SCK 010-I4
CG_CMD 010-I4
CG_CPS 010-I4
DCP_DO_START 61 CN211 (61/80)
DCP_SIF_SCK 59 CN211 (59/80)
DCP_SIF_CMD 57 CN211 (57/80)
DCP_SIF_RCV 55 CN211 (55/80)
DCP_SIF_EN 51 CN211 (51/80)
CN202 (18/30) AU_DEC_3/4
CN202 (19/30) AU_DEC_1/2
AU_ENC_1/2 13 CN205 (13/30)
AU_ENC_3/4 12 CN205 (12/30)
011-M5 APS_AD_3/4
011-M1 APS_AD_1/2
012-F2 APS_CMD
012-F2 APS_SCK
012-F2 APS_START
012-H9, 016-O5 FS/47_APS
016-O5 FS256/47_APS
APS_RCV 012-B3
DA_1/2 013-C4
DA_3/4 013-I4
017-G2 RESET_APS
012-K9 APS_MUTING
015-G8 LOCKAUD
011-B3, 017-T5 AU_MUTING
RCOUT_MUTE_DIG 013-C3, 013-I3
012-H5, 016-O5 FS/47_APS
011-B4, 016-O4 FS/48
APS_MUTING 012-H6
DA_MUTE
TP1200
TP1201
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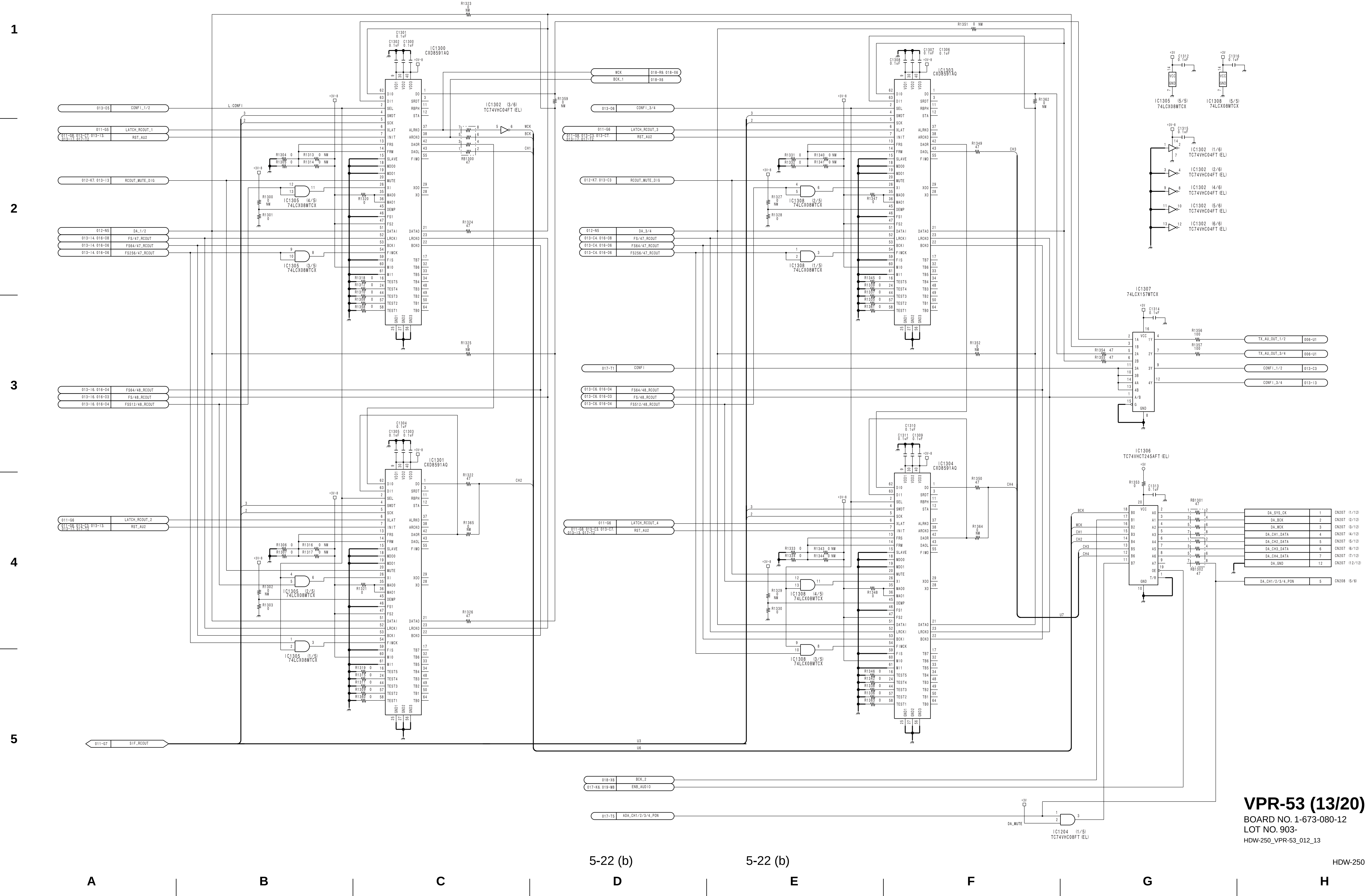
VPR-53 (12/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_12

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher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IC1300 CXD8591AQ
IC1301 CXD8591AQ
IC1303 CXD8591AQ
IC1304 CXD8591AQ
IC1302 (3/6) TC74VHC04FT (EL)
IC1302 (1/6) TC74VHC04FT (EL)
IC1302 (2/6) TC74VHC04FT (EL)
IC1302 (4/6) TC74VHC04FT (EL)
IC1302 (5/6) TC74VHC04FT (EL)
IC1302 (6/6) TC74VHC04FT (EL)
IC1305 (4/5) 74LCX08MTCX
IC1305 (3/5) 74LCX08MTCX
IC1305 (2/5) 74LCX08MTCX
IC1305 (1/5) 74LCX08MTCX
IC1305 (5/5) 74LCX08MTCX
IC1308 (2/5) 74LCX08MTCX
IC1308 (1/5) 74LCX08MTCX
IC1308 (4/5) 74LCX08MTCX
IC1308 (3/5) 74LCX08MTCX
IC1308 (5/5) 74LCX08MTCX
IC1307 74LCX157MTCX
IC1306 TC74VHCT245AFT (EL)
IC1204 (1/5) TC74VHC08FT (EL)
013-O5 CONFI_1/2
011-G5 LATCH_RCOUT_1
011-G8, 013-C7, 013-I3, 013-I7, 017-T2 RST_AU2
012-K7, 013-I3 RCOUT_MUTE_DIG
012-N5 DA_1/2
013-I4, 016-O8 FS/47_RCOUT
013-I4, 016-O6 FS64/47_RCOUT
013-I4, 016-O6 FS256/47_RCOUT
013-I6, 016-O4 FS64/48_RCOUT
013-I6, 016-O3 FS/48_RCOUT
013-I6, 016-O4 FS512/48_RCOUT
011-G6 LATCH_RCOUT_2
011-G8, 013-C3, 013-I3, 013-I7 RST_AU2
011-G7 SIF_RCOUT
WCK 018-R6, 018-X6
BCK_1 018-X6
013-O6 CONFI_3/4
011-G6 LATCH_RCOUT_3
011-G8, 013-C3, 013-C7, 013-I7, 017-T2 RST_AU2
012-K7, 013-C3 RCOUT_MUTE_DIG
012-N5 DA_3/4
013-C4, 016-O8 FS/47_RCOUT
013-C4, 016-O6 FS64/47_RCOUT
013-C4, 016-O6 FS256/47_RCOUT
017-T1 CONFI
013-C6, 016-O4 FS64/48_RCOUT
013-C6, 016-O3 FS/48_RCOUT
013-C6, 016-O4 FS512/48_RCOUT
011-G8 LATCH_RCOUT_4
011-G8, 013-C3, 013-C7, 013-I3, 017-T2 RST_AU2
018-X6 BCK_2
017-K6, 019-M8 ENB_AUDIO
017-T5 ADA_CH1/2/3/4_PON
DA_MUTE
L.CONFI
WCK
BCK
CH1
CH2
CH3
CH4
U3
U6
U7
TX_AU_OUT_1/2 006-U1
TX_AU_OUT_3/4 006-U1
CONFI_1/2 013-C3
CONFI_3/4 013-I3
DA_SYS_CK 1 CN207 (1/12)
DA_BCK 2 CN207 (2/12)
DA_WCK 3 CN207 (3/12)
DA_CH1_DATA 4 CN207 (4/12)
DA_CH2_DATA 5 CN207 (5/12)
DA_CH3_DATA 6 CN207 (6/12)
DA_CH4_DATA 7 CN207 (7/12)
DA_GND 12 CN207 (12/12)
DA_CH1/2/3/4_PON 5 CN208 (5/6)
RB1301 47
RB1302 47
RB1300 47

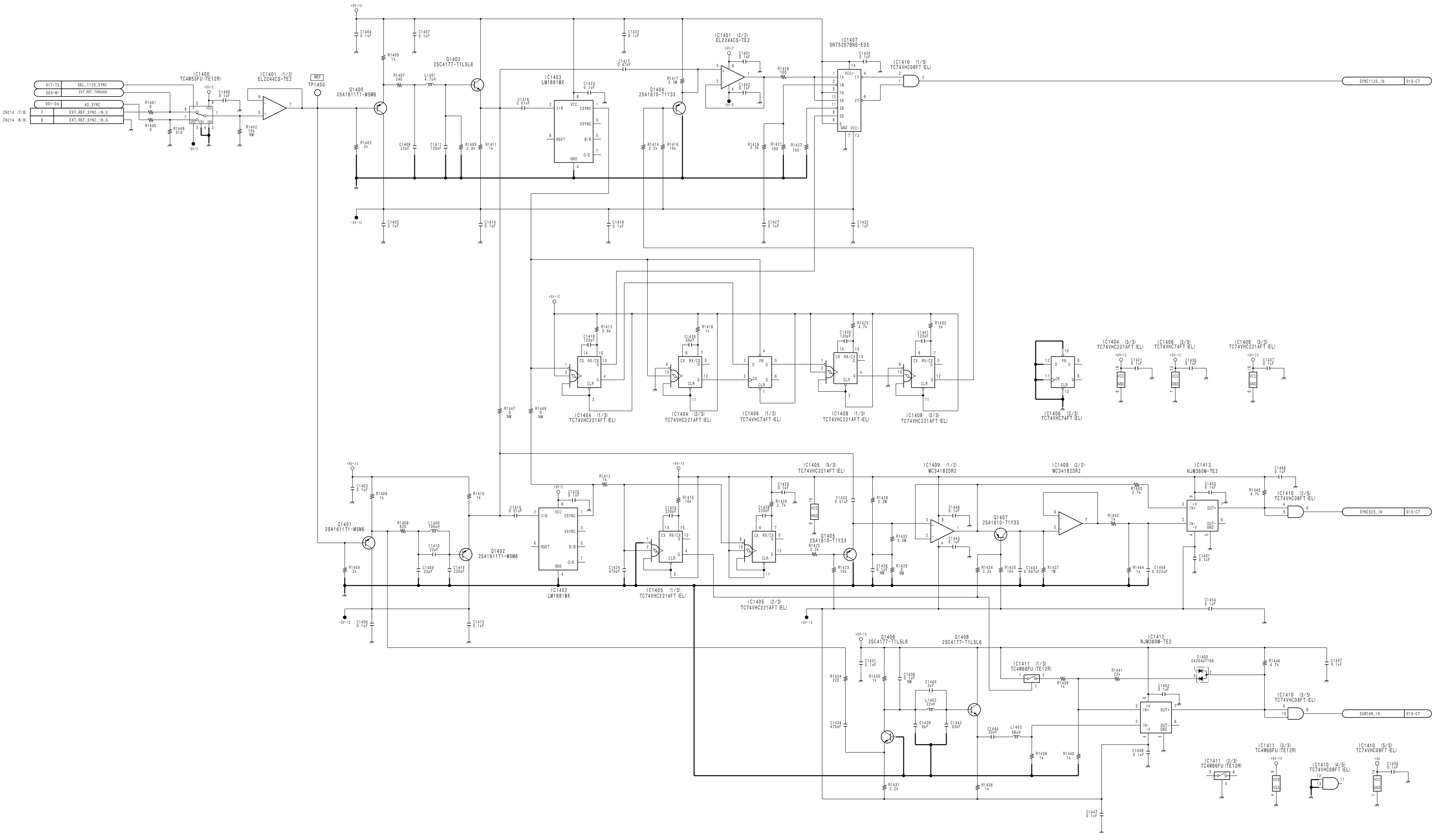
VPR-53 (13/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_13

http://getMANUAL.com

VPR-53 (14/20)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC1400 TC4W53FU (TE12R)
IC1401 (1/2) EL2244CS-TE2
IC1401 (2/2) EL2244CS-TE2
IC1403 LM1881MX
IC1402 LM1881MX
IC1407 SN7S207BNS-E05
IC1410 (1/5) TC74VHC08FT (EL)
IC1410 (2/5) TC74VHC08FT (EL)
IC1410 (3/5) TC74VHC08FT (EL)
IC1410 (4/5) TC74VHC08FT (EL)
IC1410 (5/5) TC74VHC08FT (EL)
IC1404 (1/3) TC74VHC221AFT (EL)
IC1404 (2/3) TC74VHC221AFT (EL)
IC1404 (3/3) TC74VHC221AFT (EL)
IC1406 (1/3) TC74VHC74FT (EL)
IC1406 (2/3) TC74VHC74FT (EL)
IC1406 (3/3) TC74VHC74FT (EL)
IC1408 (1/3) TC74VHC221AFT (EL)
IC1408 (2/3) TC74VHC221AFT (EL)
IC1408 (3/3) TC74VHC221AFT (EL)
IC1405 (1/3) TC74VHC221AFT (EL)
IC1405 (2/3) TC74VHC221AFT (EL)
IC1405 (3/3) TC74VHC221AFT (EL)
IC1409 (1/2) MC34182DR2
IC1409 (2/2) MC34182DR2
IC1413 NJM360M-TE2
IC1412 NJM360M-TE2
IC1411 (1/3) TC4W66FU (TE12R)
IC1411 (2/3) TC4W66FU (TE12R)
IC1411 (3/3) TC4W66FU (TE12R)
Q1400 2SA1611T1-M5M6
Q1401 2SA1611T1-M5M6
Q1402 2SA1611T1-M5M6
Q1403 2SC4177-T1L5L6
Q1404 2SA1610-T1Y33
Q1405 2SA1610-T1Y33
Q1406 2SC4177-T1L5L6
Q1407 2SA1610-T1Y33
Q1408 2SC4177-T1L5L6
D1400 DA204UT106
TP1400
REF
017-T3 SEL_1125_SYNC
003-W1 EXT_REF_THROUGH
001-D4 AD_SYNC
CN214 (7/8) 7 EXT_REF_SYNC_IN_X
CN214 (8/8) 8 EXT_REF_SYNC_IN_G
SYNC1125_IN 015-C7
SYNC525_IN 015-C7
SUBCAR_IN 015-C7
+5V-12
-5V-12
+5V-13
-5V-13
+5V-2
-5V-2
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VPR-53 (14/20)
BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_14

5-23 (b)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

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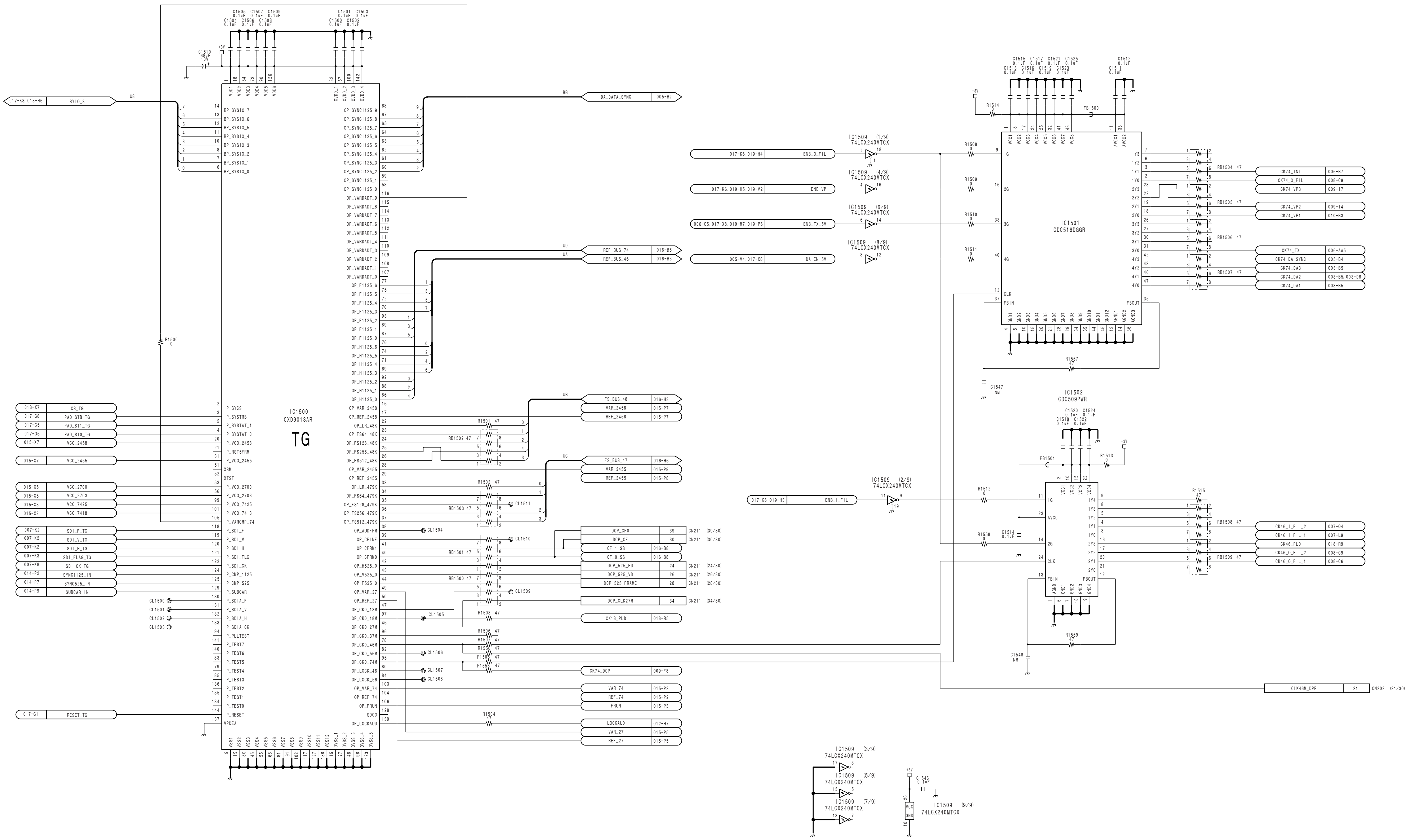
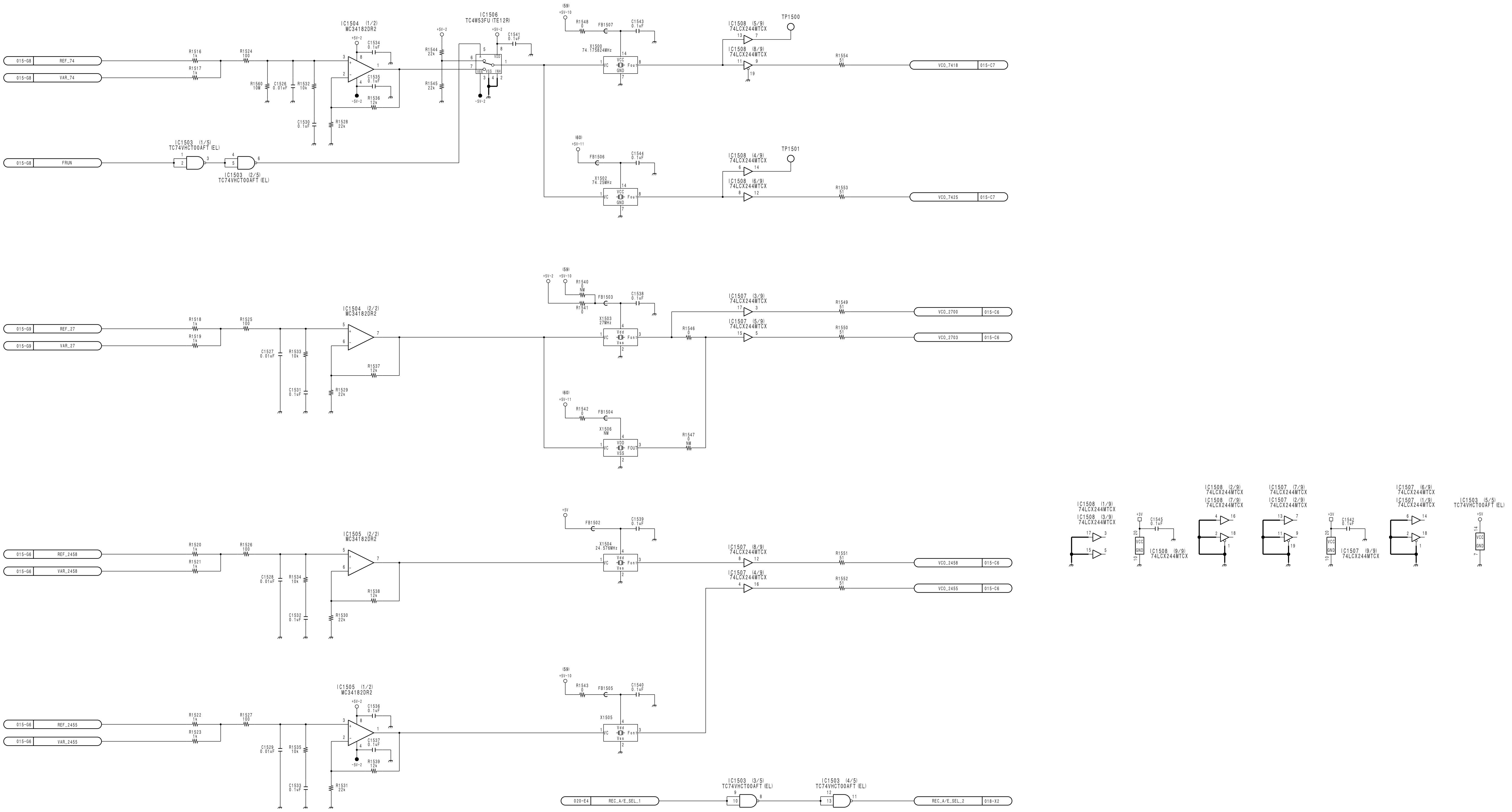

IC1500
CXD9013AR
TG
IC1501
CDC516DGGR
IC1502
CDC509PWR
IC1509 (1/9) 74LCX240MTCX
IC1509 (4/9) 74LCX240MTCX
IC1509 (6/9) 74LCX240MTCX
IC1509 (8/9) 74LCX240MTCX
IC1509 (2/9) 74LCX240MTCX
IC1509 (3/9) 74LCX240MTCX
IC1509 (5/9) 74LCX240MTCX
IC1509 (7/9) 74LCX240MTCX
IC1509 (9/9) 74LCX240MTCX
SYIO_3
DA_DATA_SYNC
REF_BUS_74
REF_BUS_46
FS_BUS_48
VAR_2458
REF_2458
FS_BUS_47
VAR_2455
REF_2455
ENB_O_FIL
ENB_VP
ENB_TX_SV
DA_EN_SV
ENB_I_FIL
CK74_INT
CK74_O_FIL
CK74_VP3
CK74_VP2
CK74_VP1
CK74_TX
CK74_DA_SYNC
CK74_DA3
CK74_DA2
CK74_DA1
CK46_I_FIL_2
CK46_I_FIL_1
CK46_PLD
CK46_O_FIL_2
CK46_O_FIL_1
CLK46M_DPR
CS_TG
PAD_STB_TG
PAD_ST1_TG
PAD_STO_TG
VCO_2458
VCO_2455
VCO_2700
VCO_2703
VCO_7425
VCO_7418
SDI_F_TG
SDI_V_TG
SDI_H_TG
SDI_FLAG_TG
SDI_CK_TG
SYNC1125_IN
SYNC525_IN
SUBCAR_IN
RESET_TG
DCP_CFO
DCP_CF
CF_1_SS
CF_0_SS
DCP_525_HD
DCP_525_VD
DCP_525_FRAME
DCP_CLK27M
CK18_PLD
CK74_DCP
VAR_74
REF_74
FRUN
LOCKAUD
VAR_27
REF_27
CN211
CN202

A B C D E F G H

VPR-53 (15/20)


015-G8 REF_74
015-G8 VAR_74
015-G8 FRUN
R1516 1k
R1517 1k
R1524 100
R1560 10M
C1526 0.01uF
R1532 10k
C1530 0.1uF
R1528 22k
IC1504 (1/2) MC34182DR2
+5V-2
-5V-2
C1534 0.1uF
C1535 0.1uF
R1536 12k
R1544 22k
R1545 22k
IC1506 TC4W53FU (TE12R)
A VDD VEE VSS INH
C1541 0.1uF
IC1503 (1/5) TC74VHCT00AFT (EL)
IC1503 (2/5) TC74VHCT00AFT (EL)
(59) +5V-10
R1548 0
FB1507
C1543 0.1uF
X1500 74.175824MHz
VC VCC Fout GND
IC1508 (5/9) 74LCX244MTCX
IC1508 (8/9) 74LCX244MTCX
TP1500
R1554 51
VCO_7418 015-C7
(60) +5V-11
FB1506
C1544 0.1uF
X1502 74.25MHz
IC1508 (4/9) 74LCX244MTCX
IC1508 (6/9) 74LCX244MTCX
TP1501
R1553 51
VCO_7425 015-C7
015-G9 REF_27
015-G9 VAR_27
R1518 1k
R1519 1k
R1525 100
C1527 0.01uF
R1533 10k
C1531 0.1uF
R1529 22k
IC1504 (2/2) MC34182DR2
R1537 12k
+5V-2 (59) +5V-10
R1540 0 NM
R1541 0
FB1503
C1538 0.1uF
X1503 27MHz
VC Vdd Font Vss
R1546 0
IC1507 (3/9) 74LCX244MTCX
IC1507 (5/9) 74LCX244MTCX
R1549 51
R1550 51
VCO_2700 015-C6
VCO_2703 015-C6
(60) +5V-11
R1542 0
FB1504
X1506 NM
VC VDD FOUT VSS
R1547 0 NM
015-G6 REF_2458
015-G6 VAR_2458
R1520 1k
R1521 1k
R1526 100
C1528 0.01uF
R1534 10k
C1532 0.1uF
R1530 22k
IC1505 (2/2) MC34182DR2
R1538 12k
+5V
FB1502
C1539 0.1uF
X1504 24.576MHz
IC1507 (8/9) 74LCX244MTCX
IC1507 (4/9) 74LCX244MTCX
R1551 51
R1552 51
VCO_2458 015-C6
VCO_2455 015-C6
015-G6 REF_2455
015-G6 VAR_2455
R1522 1k
R1523 1k
R1527 100
C1529 0.01uF
R1535 10k
C1533 0.1uF
R1531 22k
IC1505 (1/2) MC34182DR2
C1536 0.1uF
C1537 0.1uF
R1539 12k
(59) +5V-10
R1543 0
FB1505
C1540 0.1uF
X1505
020-E4 REC_A/E_SEL_1
IC1503 (3/5) TC74VHCT00AFT (EL)
IC1503 (4/5) TC74VHCT00AFT (EL)
REC_A/E_SEL_2 018-X2
IC1508 (1/9) 74LCX244MTCX
IC1508 (3/9) 74LCX244MTCX
+3V
C1545 0.1uF
VCC GND
IC1508 (9/9) 74LCX244MTCX
IC1508 (2/9) 74LCX244MTCX
IC1508 (7/9) 74LCX244MTCX
IC1507 (7/9) 74LCX244MTCX
IC1507 (2/9) 74LCX244MTCX
C1542 0.1uF
IC1507 (9/9) 74LCX244MTCX
IC1507 (6/9) 74LCX244MTCX
IC1507 (1/9) 74LCX244MTCX
IC1503 (5/5) TC74VHCT00AFT (EL)
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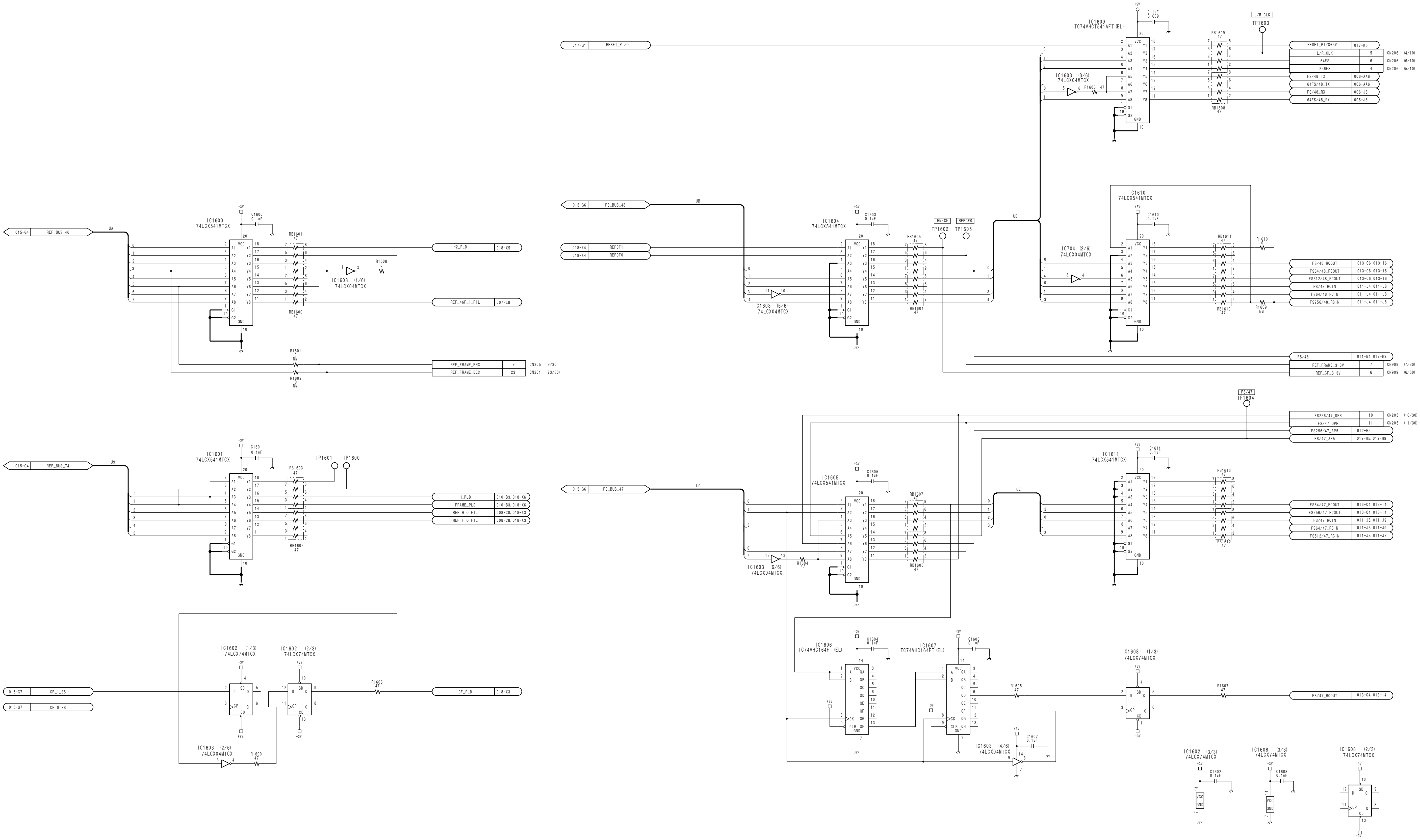
VPR-53 (15/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_15

5-25 (b)

VPR-53 (16/20)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC1600 74LCX541MTCX
IC1601 74LCX541MTCX
IC1602 (1/3) 74LCX74MTCX
IC1602 (2/3) 74LCX74MTCX
IC1602 (3/3) 74LCX74MTCX
IC1603 (1/6) 74LCX04MTCX
IC1603 (2/6) 74LCX04MTCX
IC1603 (3/6) 74LCX04MTCX
IC1603 (4/6) 74LCX04MTCX
IC1603 (5/6) 74LCX04MTCX
IC1603 (6/6) 74LCX04MTCX
IC1604 74LCX541MTCX
IC1605 74LCX541MTCX
IC1606 TC74VHC164FT (EL)
IC1607 TC74VHC164FT (EL)
IC1608 (1/3) 74LCX74MTCX
IC1608 (2/3) 74LCX74MTCX
IC1608 (3/3) 74LCX74MTCX
IC1609 TC74VHCT541AFT (EL)
IC1610 74LCX541MTCX
IC1611 74LCX541MTCX
IC704 (2/6) 74LCX04MTCX
015-G4 REF_BUS_46
015-G4 REF_BUS_74
015-G7 CF_1_SS
015-G7 CF_0_SS
017-G1 RESET_P1/O
015-G6 FS_BUS_48
018-X4 REFCF1
018-X4 REFCF0
015-G6 FS_BUS_47
H2_PLD 018-X5
REF_46F_1_FIL 007-L8
REF_FRAME_ENC 9 CN205 (9/30)
REF_FRAME_SEC 23 CN201 (23/30)
H_PLD 010-B3, 018-X6
FRAME_PLD 010-B3, 018-X6
REF_H_O_FIL 008-C8, 018-X3
REF_F_O_FIL 008-C8, 018-X3
CF_PLD 018-X3
RESET_P1/O+5V 017-K5
L/R_CLK 5 CN206 (4/10)
64FS 6 CN206 (6/10)
256FS 4 CN206 (5/10)
FS/48_TX 006-AA6
64FS/48_TX 006-AA6
FS/48_RX 006-J8
64FS/48_RX 006-J8
FS/48_RCOUT 013-C6, 013-I6
FS64/48_RCOUT 013-C6, 013-I6
FS512/48_RCOUT 013-C6, 013-I6
FS/48_RCIN 011-J4, 011-J8
FS64/48_RCIN 011-J4, 011-J8
FS256/48_RCIN 011-J4, 011-J8
FS/48 011-B4, 012-H9
REF_FRAME_3.3V 7 CN909 (7/30)
REF_CF_3.3V 8 CN909 (8/30)
FS256/47_DPR 10 CN205 (10/30)
FS/47_DPR 11 CN205 (11/30)
FS256/47_APS 012-H5
FS/47_APS 012-H5, 012-H9
FS64/47_RCOUT 013-C4, 013-I4
FS256/47_RCOUT 013-C4, 013-I4
FS/47_RCIN 011-J5, 011-J9
FS64/47_RCIN 011-J5, 011-J9
FS512/47_RCIN 011-J3, 011-J7
FS/47_RCOUT 013-C4, 013-I4
L/R_CLK TP1603
REFCF TP1602
REFCFS TP1605
FS/47 TP1604
TP1601
TP1600
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VPR-53 (16/20)

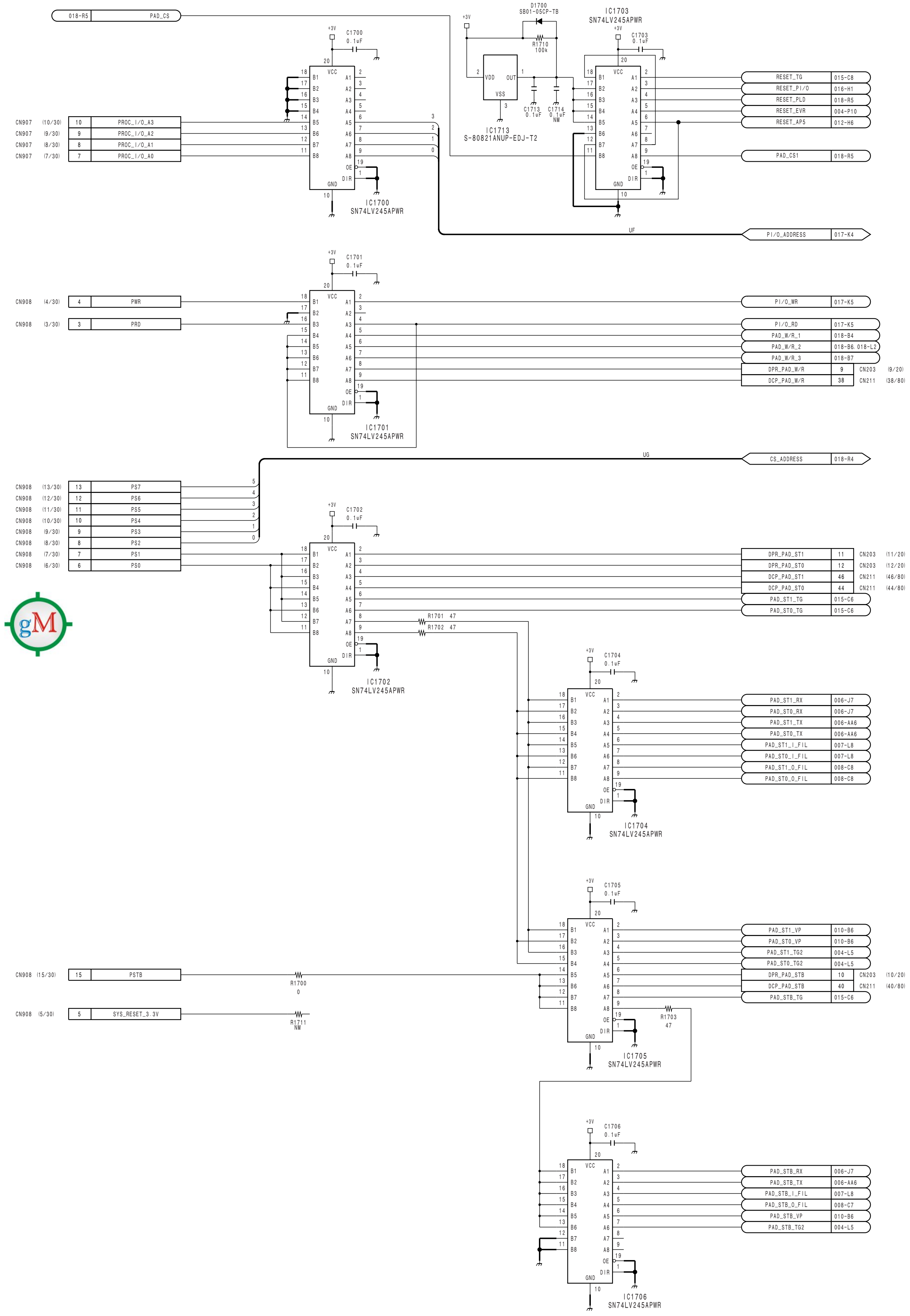
BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_16

5-27 (b)

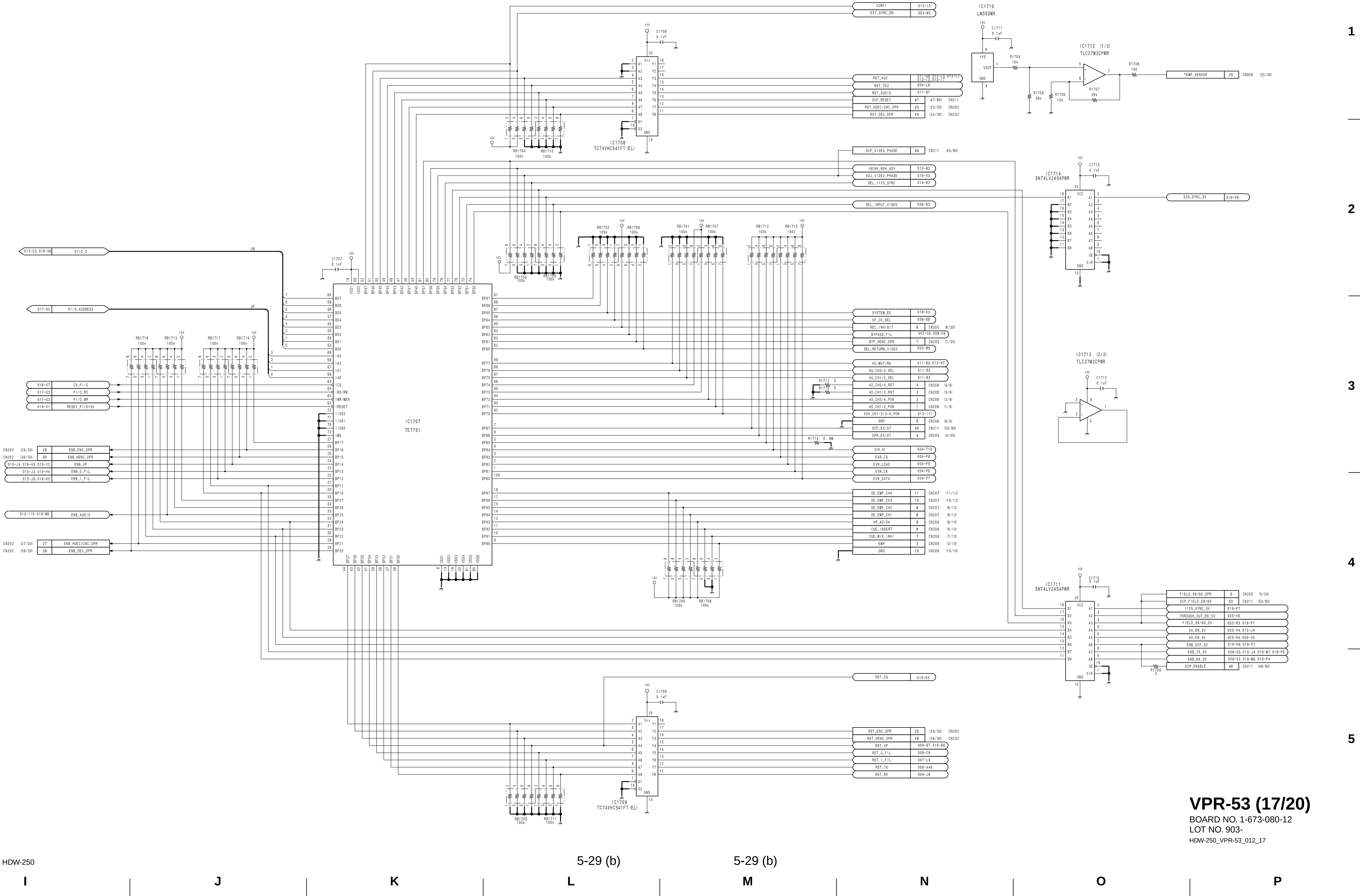
VPR-53 (17/20)

VPR-53 (17/20)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


018-R5
PAD_CS
+3V
C1700
0.1uF
IC1700
SN74LV245APWR
CN907 (10/30) 10 PROC_I/O_A3
CN907 (9/30) 9 PROC_I/O_A2
CN907 (8/30) 8 PROC_I/O_A1
CN907 (7/30) 7 PROC_I/O_A0
VCC
GND
B1
B2
B3
B4
B5
B6
B7
B8
A1
A2
A3
A4
A5
A6
A7
A8
OE
DIR
D1700
SB01-05CP-TB
R1710
100k
VDD
OUT
VSS
C1713
0.1uF
C1714
0.1uF
NM
IC1713
S-80821ANUP-EDJ-T2
IC1703
SN74LV245APWR
C1703
0.1uF
RESET_TG 015-C8
RESET_PI/O 016-H1
RESET_PLD 018-R5
RESET_EVR 004-P10
RESET_AP5 012-H6
PAD_CS1 018-R5
UF
PI/O_ADDRESS 017-K4
C1701
0.1uF
CN908 (4/30) 4 PWR
CN908 (3/30) 3 PRD
IC1701
SN74LV245APWR
PI/O_WR 017-K5
PI/O_RD 017-K5
PAD_W/R_1 018-B4
PAD_W/R_2 018-B6, 018-L2
PAD_W/R_3 018-B7
DPR_PAD_W/R 9 CN203 (9/20)
DCP_PAD_W/R 38 CN211 (38/80)
UG
CS_ADDRESS 018-R4
CN908 (13/30) 13 PS7
CN908 (12/30) 12 PS6
CN908 (11/30) 11 PS5
CN908 (10/30) 10 PS4
CN908 (9/30) 9 PS3
CN908 (8/30) 8 PS2
CN908 (7/30) 7 PS1
CN908 (6/30) 6 PS0
C1702
0.1uF
IC1702
SN74LV245APWR
R1701 47
R1702 47
DPR_PAD_ST1 11 CN203 (11/20)
DPR_PAD_ST0 12 CN203 (12/20)
DCP_PAD_ST1 46 CN211 (46/80)
DCP_PAD_ST0 44 CN211 (44/80)
PAD_ST1_TG 015-C6
PAD_ST0_TG 015-C6
C1704
0.1uF
IC1704
SN74LV245APWR
PAD_ST1_RX 006-J7
PAD_ST0_RX 006-J7
PAD_ST1_TX 006-AA6
PAD_ST0_TX 006-AA6
PAD_ST1_I_FIL 007-L8
PAD_ST0_I_FIL 007-L8
PAD_ST1_O_FIL 008-C8
PAD_ST0_O_FIL 008-C8
C1705
0.1uF
IC1705
SN74LV245APWR
CN908 (15/30) 15 PSTB
R1700
0
CN908 (5/30) 5 SYS_RESET_3.3V
R1711
NM
R1703
47
PAD_ST1_VP 010-B6
PAD_ST0_VP 010-B6
PAD_ST1_TG2 004-L5
PAD_ST0_TG2 004-L5
DPR_PAD_STB 10 CN203 (10/20)
DCP_PAD_STB 40 CN211 (40/80)
PAD_STB_TG 015-C6
C1706
0.1uF
IC1706
SN74LV245APWR
PAD_STB_RX 006-J7
PAD_STB_TX 006-AA6
PAD_STB_I_FIL 007-L8
PAD_STB_O_FIL 008-C7
PAD_STB_VP 010-B6
PAD_STB_TG2 004-L5

5-28 (b)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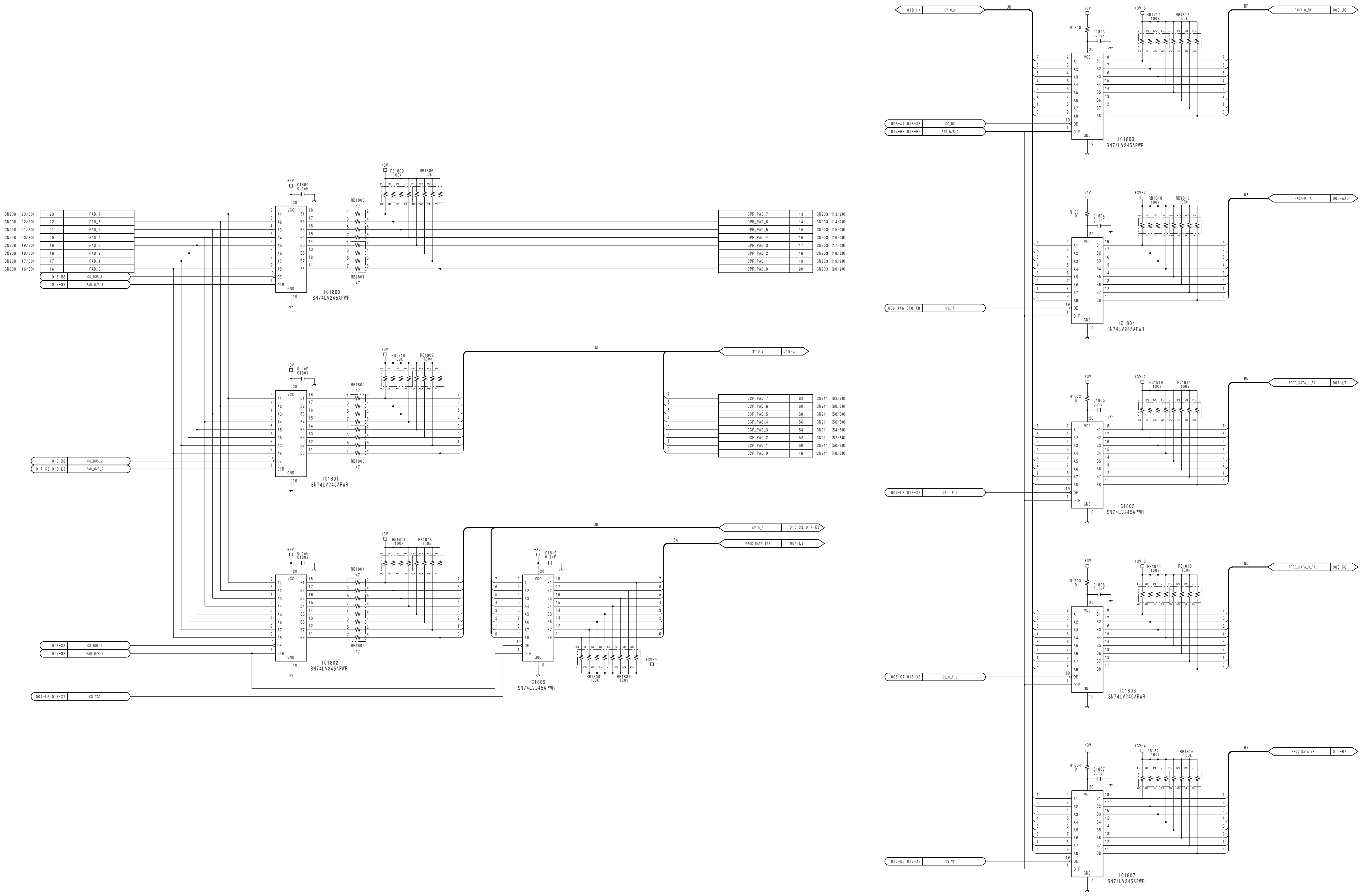
O
P
IC1707
TE7751
IC1708
TC74VHC541FT (EL)
IC1709
TC74VHC541FT (EL)
IC1710
LM35DMX
IC1712 (1/2)
TLC27M2CPWR
IC1712 (2/2)
TLC27M2CPWR
IC1714
SN74LV245APWR
IC1711
SN74LV245APWR
C1707 0.1uF
C1708 0.1uF
C1709 0.1uF
C1710 0.1uF
C1711 0.1uF
C1712 0.1uF
C1715 0.1uF
R1704 10k
R1705 39k
R1706 10k
R1707 39k
R1708 100
R1709 0
R1712 0
R1713 0
R1714 0 NM
RB1700 100k
RB1701 100k
RB1702 100k
RB1703 100k
RB1704 100k
RB1705 100k
RB1706 100k
RB1707 100k
RB1708 100k
RB1709 100k
RB1710 100k
RB1711 100k
RB1712 100k
RB1713 100k
RB1714 100k
RB1715 100k
RB1716 100k
RB1717 100k
+5V
+3V
U8
UF
015-C3, 018-H6 SYIO_3
017-G2 PI/O_ADDRESS
018-X7 CS_PI/O
017-G3 PI/O_RD
017-G3 PI/O_WR
016-01 RESET_PI/O+5V
CN202 (29/30) 29 ENB_ENC_DPR
CN202 (30/30) 30 ENB_HENC_DPR
015-J4, 019-H5, 019-V2 ENB_VP
015-J3, 019-H4 ENB_O_FIL
015-J6, 019-H3 ENB_I_FIL
013-I10, 019-M8 ENB_AUDIO
CN202 (27/30) 27 ENB_HDEC/CNC_DPR
CN202 (28/30) 28 ENB_DEC_DPR
CONFI 013-I5
EXT_SYNC_EN 003-W2
RST_AU2 011-G8, 013-C3, 013-C7, 013-I3, 013-I7
RST_TG2 004-L8
RST_AUDIO 011-B7
DCP_RESET 47 (47/80) CN211
RST_HDEC/CNC_DPR 23 (23/30) CN202
RST_DEC_DPR 24 (24/30) CN202
TEMP_SENSOR 25 CN908 (25/30)
DCP_VIDEO_PHASE 45 CN211 (45/80)
INCHK_90H_ADV 010-B3
ADJ_VIDEO_PHASE 018-X3
SEL_1125_SYNC 014-B2
SEL_INPUT_VIDEO 006-B3
525_SYNC_5V 019-P9
SYSTEM_EE 018-X3
VP_CK_SEL 006-B8
REC_INHIBIT 8 CN205 (8/30)
BYPASS_FIL 007-Q5, 008-C6
BYP_HENC_DPR 7 CN205 (7/30)
SEL_RETURN_VIDEO 003-W8
AU_MUTING 011-B3, 012-H7
AU_CH3/4_SEL 011-B3
AU_CH1/2_SEL 011-B3
AD_CH3/4_RST 4 CN208 (4/6)
AD_CH1/2_RST 3 CN208 (3/6)
AD_CH3/4_PON 2 CN208 (2/6)
AD_CH1/2_PON 1 CN208 (1/6)
ADA_CH1/2/3/4_PON 013-I11
GND 6 CN208 (6/6)
DCP_EXIST 35 CN211 (35/80)
DPR_EXIST 4 CN205 (4/30)
EVR_DO 004-T10
EVR_CS 004-P6
EVR_LOAD 004-P9
EVR_CK 004-P8
EVR_DATA 004-P7
DE_EMP_CH4 11 CN207 (11/12)
DE_EMP_CH3 10 CN207 (10/12)
DE_EMP_CH2 9 CN207 (9/12)
DE_EMP_CH1 8 CN207 (8/12)
VR_AD/DA 8 CN206 (8/10)
CUE_INSERT 9 CN206 (9/10)
CUE_MIX_INHI 7 CN206 (7/10)
EMP 3 CN206 (3/10)
GND 10 CN206 (10/10)
FIELD_59/60_DPR 5 CN205 (5/30)
DCP_FIELD_59/60 53 CN211 (53/80)
1125_SYNC_5V 019-P7
THROUGH_OUT_EN_5V 005-V6
FIELD_59/60_5V 005-R3, 019-P1
DA_EN_5V 005-V4, 015-J4
AD_EN_5V 005-R4, 005-V3
ENB_DCP_5V 019-H6, 019-P2
ENB_TX_5V 006-Q5, 015-J4, 019-M7, 019-P6
ENB_RX_5V 006-Q2, 019-M6, 019-P4
DCP_ENABLE 49 CN211 (49/80)
RST_CG 010-K5
RST_ENC_DPR 25 (25/30) CN202
RST_HENC_DPR 26 (26/30) CN202
RST_VP 009-B7, 010-B6
RST_O_FIL 008-C9
RST_I_FIL 007-L9
RST_TX 006-AA6
RST_RX 006-J8

VPR-53 (17/20)

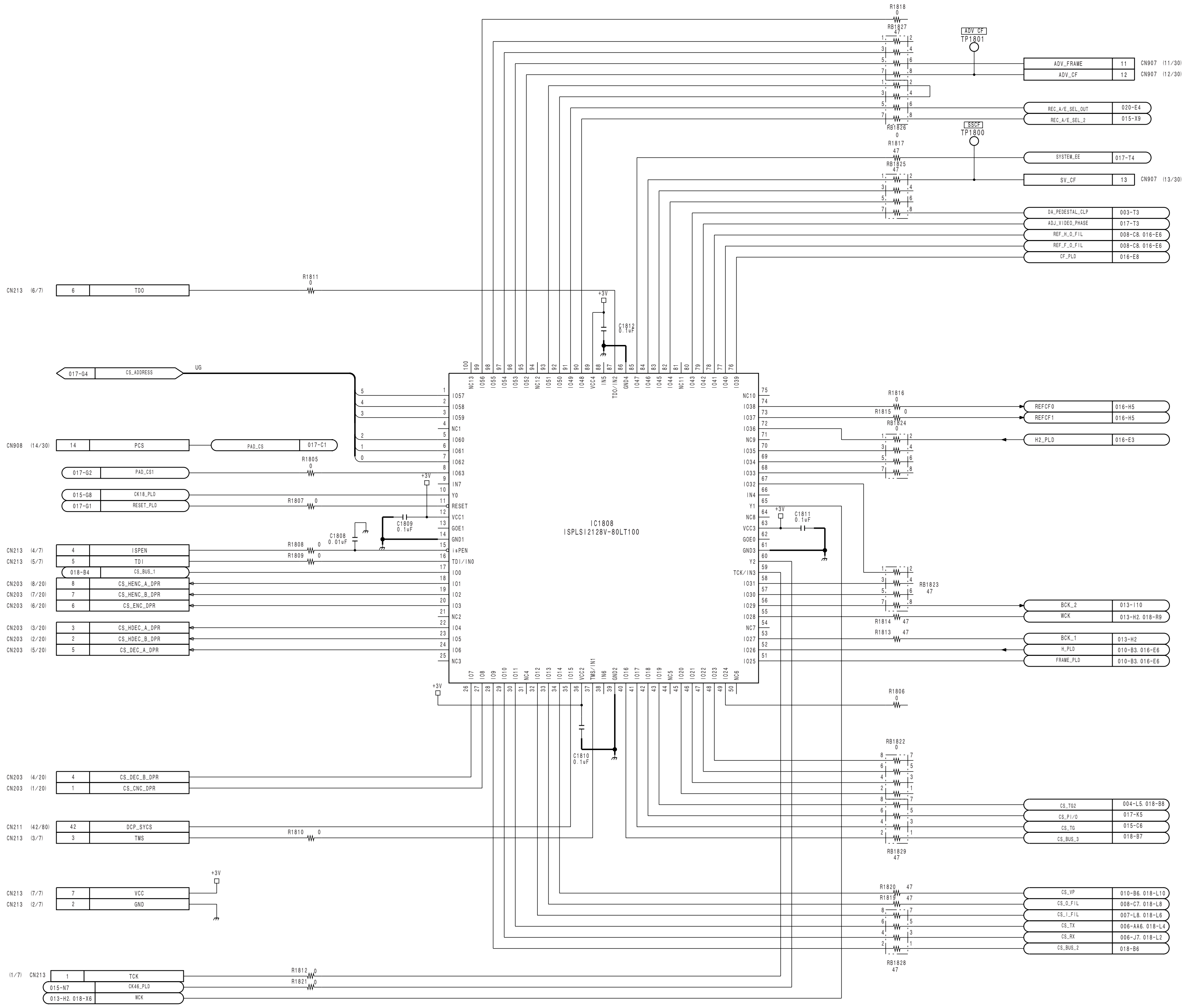
BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_17

VPR-53 (18/20)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC1800
SN74LV245APWR
IC1801
SN74LV245APWR
IC1802
SN74LV245APWR
IC1809
SN74LV245APWR
IC1803
SN74LV245APWR
IC1804
SN74LV245APWR
IC1805
SN74LV245APWR
IC1806
SN74LV245APWR
IC1807
SN74LV245APWR
PAD_7
PAD_6
PAD_5
PAD_4
PAD_3
PAD_2
PAD_1
PAD_0
CS_BUS_1
PAD_W/R_1
CS_BUS_2
PAD_W/R_2
CS_BUS_3
PAD_W/R_3
CS_TG2
DPR_PAD_7
DPR_PAD_6
DPR_PAD_5
DPR_PAD_4
DPR_PAD_3
DPR_PAD_2
DPR_PAD_1
DPR_PAD_0
DCP_PAD_7
DCP_PAD_6
DCP_PAD_5
DCP_PAD_4
DCP_PAD_3
DCP_PAD_2
DCP_PAD_1
DCP_PAD_0
SYIO_2
SYIO_3
PROC_DATA_TG2
CS_RX
CS_TX
CS_I_FIL
CS_O_FIL
CS_VP
PADT-D_RX
PADT-D_TX
PROC_DATA_I_FIL
PROC_DATA_O_FIL
PROC_DATA_VP
+3V
C1800
0.1uF
RB1800
47
RB1801
47
RB1806
100k
RB1809
100k
A
B
C
D
E
F
G
H
1
2
3
4
5

5-30 (b)

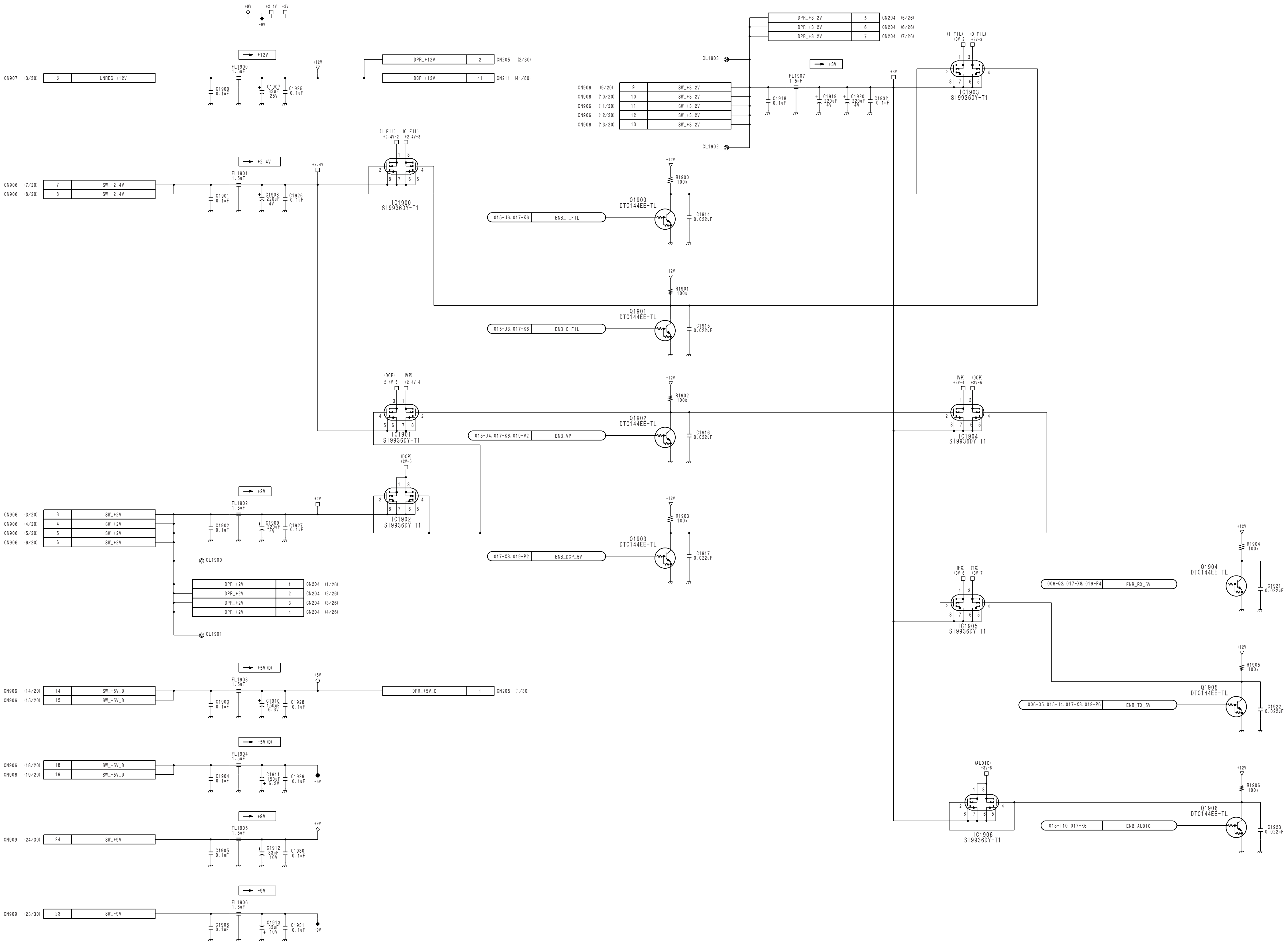

IC1808
ISPLSI2128V-80LT100
TP1801
ADV_CF
TP1800
ADV_FRAME
ADV_CF
REC_A/E_SEL_OUT
REC_A/E_SEL_2
SYSTEM_EE
SV_CF
DA_PEDESTAL_CLP
ADJ_VIDEO_PHASE
REF_H_D_FIL
REF_F_D_FIL
CF_PLD
REFCF0
REFCF1
H2_PLD
BCK_2
WCK
BCK_1
H_PLD
FRAME_PLD
CS_TG2
CS_P1/2
CS_TG
CS_BUS_3
CS_VP
CS_D_FIL
CS_1_FIL
CS_TX
CS_RX
CS_BUS_2
TDO
CS_ADDRESS
PCS
PAD_CS
PAD_CS1
CK18_PLD
RESET_PLD
ISPEN
TDI
CS_BUS_1
CS_HENC_A_DPR
CS_HENC_B_DPR
CS_ENC_DPR
CS_HDEC_A_DPR
CS_HDEC_B_DPR
CS_DEC_A_DPR
CS_DEC_B_DPR
CS_CNC_DPR
DCP_SYCS
TMS
VCC
GND
TCK
CK48_PLD
WCK
CN907
CN908
CN213
CN203
CN211
+3V

1
2
3
4
5

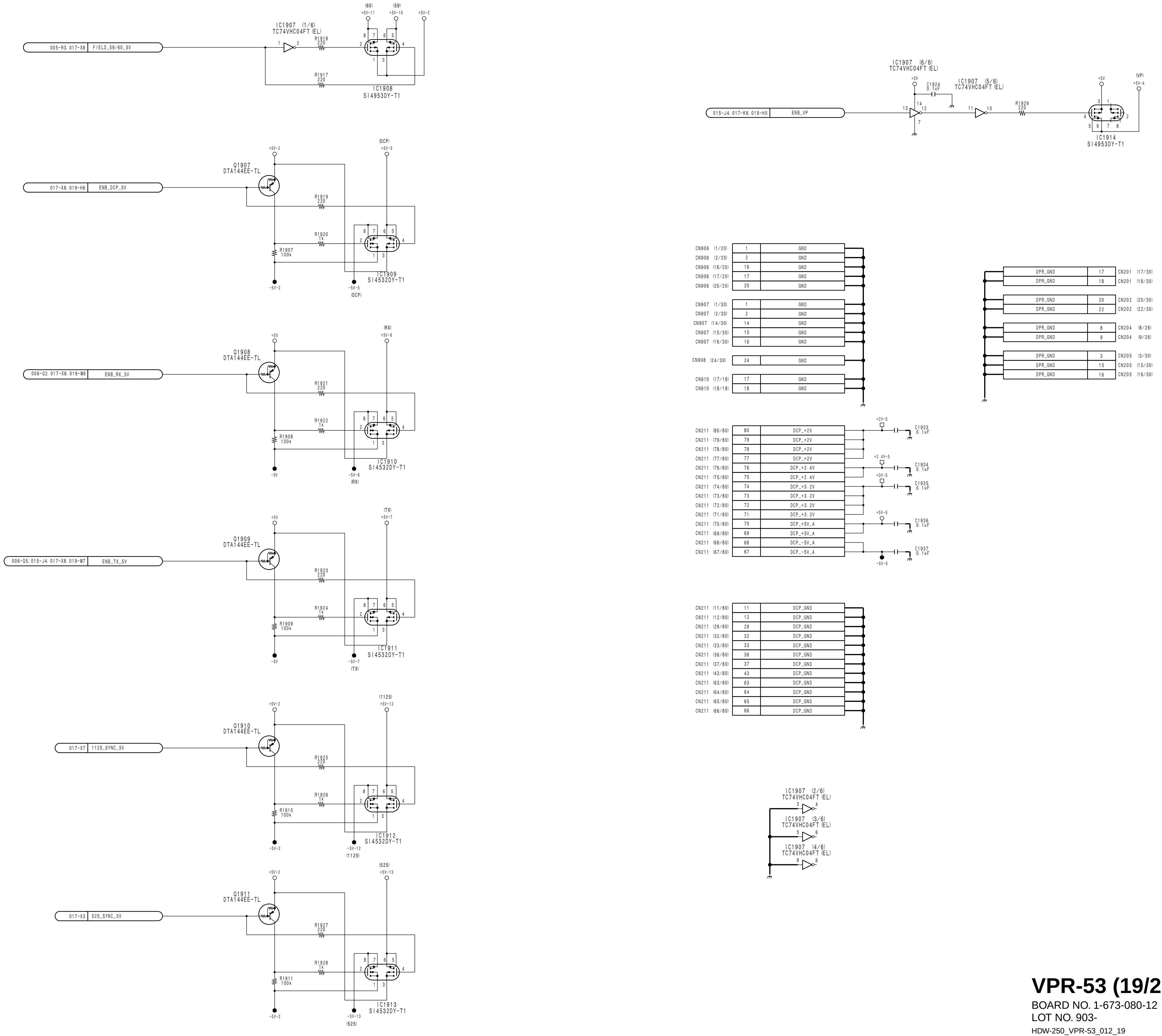
VPR-53 (18/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_18

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


CN907 (3/30) 3 UNREG_+12V
+12V
FL1900 1.5uF
C1900 0.1uF
C1907 33uF 25V
C1925 0.1uF
DPR_+12V 2 CN205 (2/30)
DCP_+12V 41 CN211 (41/80)
CN906 (7/20) 7 SW_+2.4V
CN906 (8/20) 8 SW_+2.4V
+2.4V
FL1901 1.5uF
C1901 0.1uF
C1908 220uF 4V
C1926 0.1uF
(I FIL) (O FIL)
IC1900 SI9936DY-T1
IC1901 SI9936DY-T1
IC1902 SI9936DY-T1
IC1903 SI9936DY-T1
IC1904 SI9936DY-T1
IC1905 SI9936DY-T1
IC1906 SI9936DY-T1
CN906 (9/20) 9 SW_+3.2V
CN906 (10/20) 10 SW_+3.2V
CN906 (11/20) 11 SW_+3.2V
CN906 (12/20) 12 SW_+3.2V
CN906 (13/20) 13 SW_+3.2V
DPR_+3.2V 5 CN204 (5/26)
DPR_+3.2V 6 CN204 (6/26)
DPR_+3.2V 7 CN204 (7/26)
CL1903
CL1902
+3V
FL1907 1.5uF
C1918 0.1uF
C1919 220uF 4V
C1920 220uF 4V
C1932 0.1uF
R1900 100k
Q1900 DTC144EE-TL
015-J6, 017-K6 ENB_I_FIL
C1914 0.022uF
R1901 100k
Q1901 DTC144EE-TL
015-J3, 017-K6 ENB_O_FIL
C1915 0.022uF
(DCP) (VP)
R1902 100k
Q1902 DTC144EE-TL
015-J4, 017-K6, 019-V2 ENB_VP
C1916 0.022uF
(VP) (DCP)
R1903 100k
Q1903 DTC144EE-TL
017-X8, 019-P2 ENB_DCP_5V
C1917 0.022uF
CN906 (3/20) 3 SW_+2V
CN906 (4/20) 4 SW_+2V
CN906 (5/20) 5 SW_+2V
CN906 (6/20) 6 SW_+2V
+2V
FL1902 1.5uF
C1902 0.1uF
C1909 220uF 4V
C1927 0.1uF
CL1900
DPR_+2V 1 CN204 (1/26)
DPR_+2V 2 CN204 (2/26)
DPR_+2V 3 CN204 (3/26)
DPR_+2V 4 CN204 (4/26)
CL1901
(RX) (TX)
R1904 100k
Q1904 DTC144EE-TL
006-Q2, 017-X8, 019-P4 ENB_RX_5V
C1921 0.022uF
R1905 100k
Q1905 DTC144EE-TL
006-Q5, 015-J4, 017-X8, 019-P6 ENB_TX_5V
C1922 0.022uF
(AUDIO)
R1906 100k
Q1906 DTC144EE-TL
013-I10, 017-K6 ENB_AUDIO
C1923 0.022uF
CN906 (14/20) 14 SW_+5V_D
CN906 (15/20) 15 SW_+5V_D
+5V (D)
FL1903 1.5uF
C1903 0.1uF
C1910 150uF 6.3V
C1928 0.1uF
DPR_+5V_D 1 CN205 (1/30)
CN906 (18/20) 18 SW_-5V_D
CN906 (19/20) 19 SW_-5V_D
-5V (D)
FL1904 1.5uF
C1904 0.1uF
C1911 150uF 6.3V
C1929 0.1uF
-5V
CN909 (24/30) 24 SW_+9V
+9V
FL1905 1.5uF
C1905 0.1uF
C1912 33uF 10V
C1930 0.1uF
CN909 (23/30) 23 SW_-9V
-9V
FL1906 1.5uF
C1906 0.1uF
C1913 33uF 10V
C1931 0.1uF

VPR-53 (19/20)

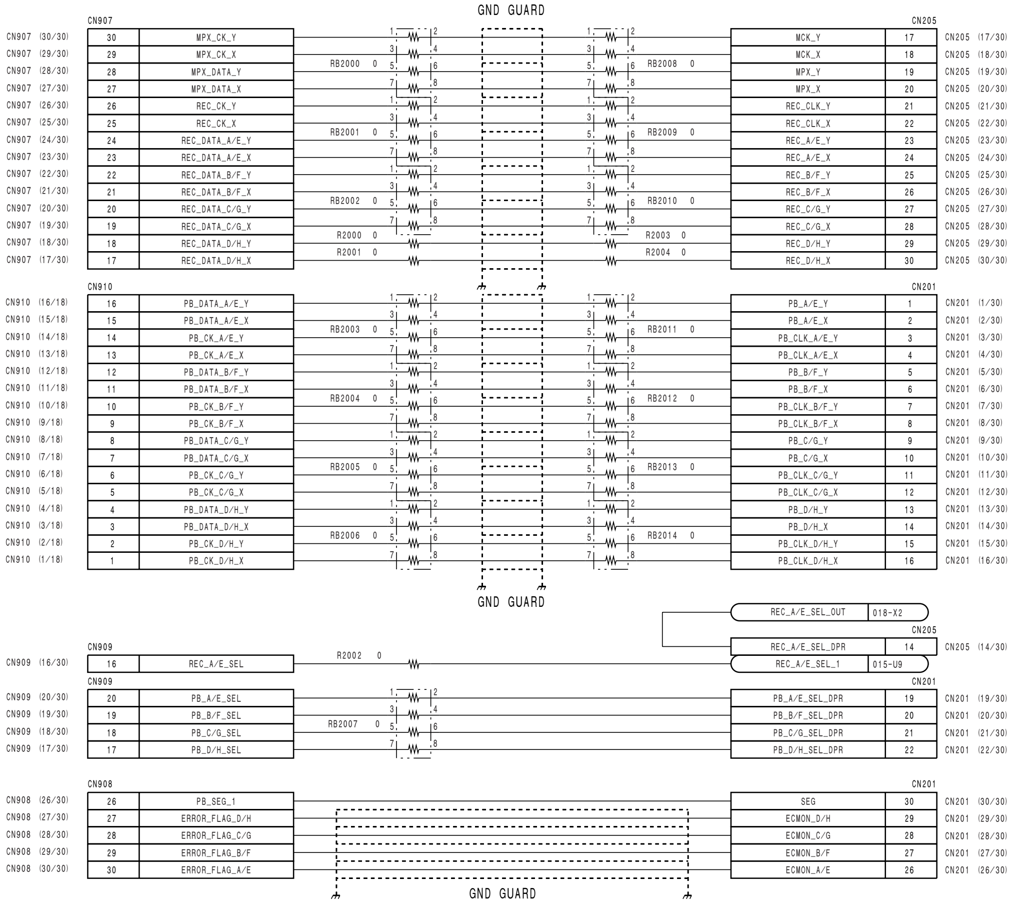

IC1907 (1/6) TC74VHC04FT (EL)
FIELD_59/60_5V
IC1908 SI4953DY-T1
Q1907 DTA144EE-TL
ENB_DCP_5V
IC1909 SI4532DY-T1
Q1908 DTA144EE-TL
ENB_RX_5V
IC1910 SI4532DY-T1
Q1909 DTA144EE-TL
ENB_TX_5V
IC1911 SI4532DY-T1
Q1910 DTA144EE-TL
1125_SYNC_5V
IC1912 SI4532DY-T1
Q1911 DTA144EE-TL
525_SYNC_5V
IC1913 SI4532DY-T1
IC1907 (6/6) TC74VHC04FT (EL)
IC1907 (5/6) TC74VHC04FT (EL)
ENB_VP
IC1914 SI4953DY-T1
GND
DPR_GND
DCP_+2V
DCP_+2.4V
DCP_+3.2V
DCP_+5V_A
DCP_-5V_A
DCP_GND
IC1907 (2/6) TC74VHC04FT (EL)
IC1907 (3/6) TC74VHC04FT (EL)
IC1907 (4/6) TC74VHC04FT (EL)

VPR-53 (19/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_19

5-33 (b)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

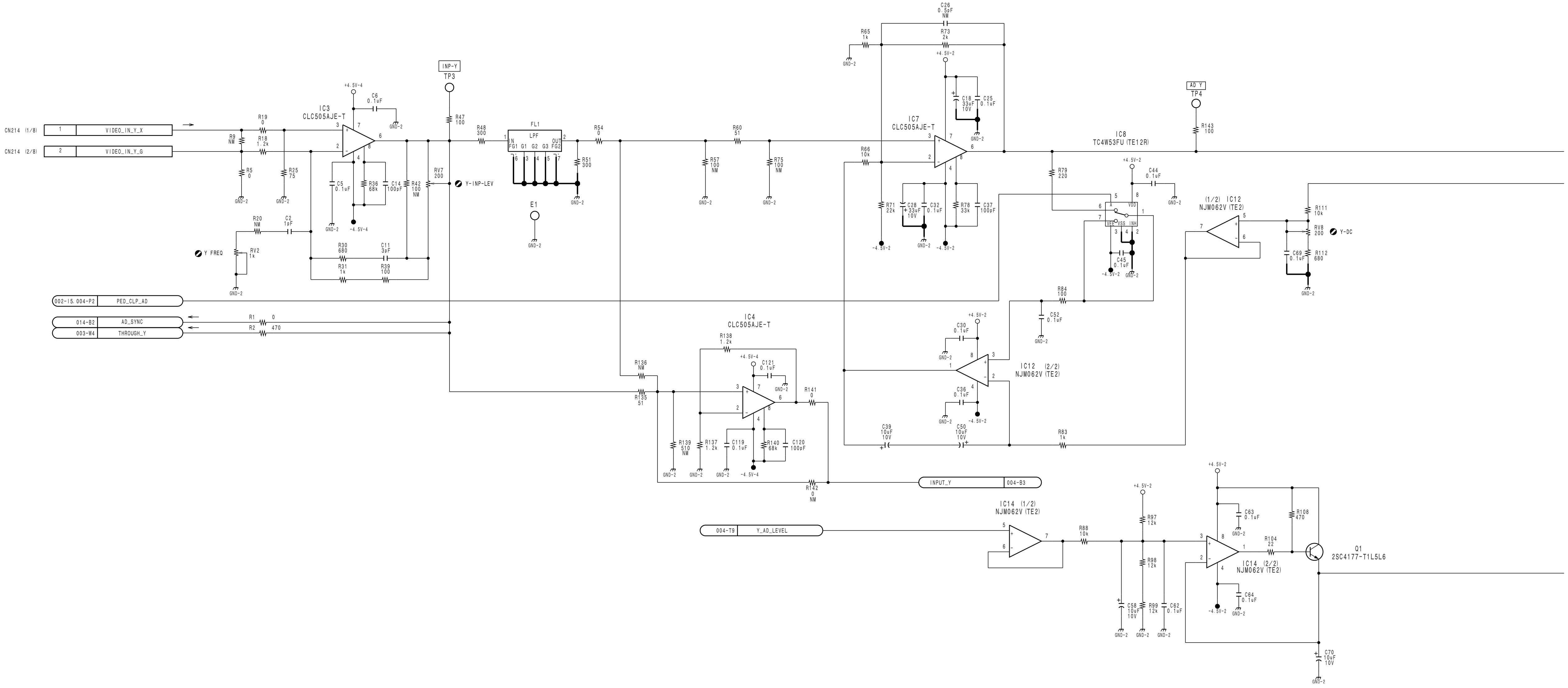

GND GUARD
CN907
CN205
CN907 (30/30) 30 MPX_CK_Y — MCK_Y 17 CN205 (17/30)
CN907 (29/30) 29 MPX_CK_X — MCK_X 18 CN205 (18/30)
CN907 (28/30) 28 MPX_DATA_Y — MPX_Y 19 CN205 (19/30)
CN907 (27/30) 27 MPX_DATA_X — MPX_X 20 CN205 (20/30)
CN907 (26/30) 26 REC_CK_Y — REC_CLK_Y 21 CN205 (21/30)
CN907 (25/30) 25 REC_CK_X — REC_CLK_X 22 CN205 (22/30)
CN907 (24/30) 24 REC_DATA_A/E_Y — REC_A/E_Y 23 CN205 (23/30)
CN907 (23/30) 23 REC_DATA_A/E_X — REC_A/E_X 24 CN205 (24/30)
CN907 (22/30) 22 REC_DATA_B/F_Y — REC_B/F_Y 25 CN205 (25/30)
CN907 (21/30) 21 REC_DATA_B/F_X — REC_B/F_X 26 CN205 (26/30)
CN907 (20/30) 20 REC_DATA_C/G_Y — REC_C/G_Y 27 CN205 (27/30)
CN907 (19/30) 19 REC_DATA_C/G_X — REC_C/G_X 28 CN205 (28/30)
CN907 (18/30) 18 REC_DATA_D/H_Y — REC_D/H_Y 29 CN205 (29/30)
CN907 (17/30) 17 REC_DATA_D/H_X — REC_D/H_X 30 CN205 (30/30)
RB2000 0
RB2001 0
RB2002 0
R2000 0
R2001 0
RB2008 0
RB2009 0
RB2010 0
R2003 0
R2004 0
CN910
CN201
CN910 (16/18) 16 PB_DATA_A/E_Y — PB_A/E_Y 1 CN201 (1/30)
CN910 (15/18) 15 PB_DATA_A/E_X — PB_A/E_X 2 CN201 (2/30)
CN910 (14/18) 14 PB_CK_A/E_Y — PB_CLK_A/E_Y 3 CN201 (3/30)
CN910 (13/18) 13 PB_CK_A/E_X — PB_CLK_A/E_X 4 CN201 (4/30)
CN910 (12/18) 12 PB_DATA_B/F_Y — PB_B/F_Y 5 CN201 (5/30)
CN910 (11/18) 11 PB_DATA_B/F_X — PB_B/F_X 6 CN201 (6/30)
CN910 (10/18) 10 PB_CK_B/F_Y — PB_CLK_B/F_Y 7 CN201 (7/30)
CN910 (9/18) 9 PB_CK_B/F_X — PB_CLK_B/F_X 8 CN201 (8/30)
CN910 (8/18) 8 PB_DATA_C/G_Y — PB_C/G_Y 9 CN201 (9/30)
CN910 (7/18) 7 PB_DATA_C/G_X — PB_C/G_X 10 CN201 (10/30)
CN910 (6/18) 6 PB_CK_C/G_Y — PB_CLK_C/G_Y 11 CN201 (11/30)
CN910 (5/18) 5 PB_CK_C/G_X — PB_CLK_C/G_X 12 CN201 (12/30)
CN910 (4/18) 4 PB_DATA_D/H_Y — PB_D/H_Y 13 CN201 (13/30)
CN910 (3/18) 3 PB_DATA_D/H_X — PB_D/H_X 14 CN201 (14/30)
CN910 (2/18) 2 PB_CK_D/H_Y — PB_CLK_D/H_Y 15 CN201 (15/30)
CN910 (1/18) 1 PB_CK_D/H_X — PB_CLK_D/H_X 16 CN201 (16/30)
RB2003 0
RB2004 0
RB2005 0
RB2006 0
RB2011 0
RB2012 0
RB2013 0
RB2014 0
GND GUARD
REC_A/E_SEL_OUT 018-X2
CN205
REC_A/E_SEL_DPR 14 CN205 (14/30)
CN909
CN909 (16/30) 16 REC_A/E_SEL
R2002 0
REC_A/E_SEL_1 015-U9
CN909
CN201
CN909 (20/30) 20 PB_A/E_SEL — PB_A/E_SEL_DPR 19 CN201 (19/30)
CN909 (19/30) 19 PB_B/F_SEL — PB_B/F_SEL_DPR 20 CN201 (20/30)
CN909 (18/30) 18 PB_C/G_SEL — PB_C/G_SEL_DPR 21 CN201 (21/30)
CN909 (17/30) 17 PB_D/H_SEL — PB_D/H_SEL_DPR 22 CN201 (22/30)
RB2007 0
CN908
CN201
CN908 (26/30) 26 PB_SEG_1 — SEG 30 CN201 (30/30)
CN908 (27/30) 27 ERROR_FLAG_D/H — ECMON_D/H 29 CN201 (29/30)
CN908 (28/30) 28 ERROR_FLAG_C/G — ECMON_C/G 28 CN201 (28/30)
CN908 (29/30) 29 ERROR_FLAG_B/F — ECMON_B/F 27 CN201 (27/30)
CN908 (30/30) 30 ERROR_FLAG_A/E — ECMON_A/E 26 CN201 (26/30)
GND GUARD

VPR-53 (20/20)

BOARD NO. 1-673-080-12
LOT NO. 903-
HDW-250_VPR-53_012_20

VPR-53 (1/20)

HDW-250 (J) : S/N 30001 through 30050


CN214 (1/8)
CN214 (2/8)
VIDEO_IN_Y_X
VIDEO_IN_Y_G
IC3
CLC505AJE-T
INP-Y
TP3
Y-INP-LEV
Y FREQ
FL1
LPF
E1
002-I5.004-P2
PED_CLP_AD
014-B2
AD_SYNC
003-W4
THROUGH_Y
IC4
CLC505AJE-T
INPUT_Y
004-B3
004-T9
Y_AD_LEVEL
IC7
CLC505AJE-T
IC8
TC4W53FU (TE12R)
AD Y
TP4
(1/2) IC12
NJM062V (TE2)
Y-DC
IC12 (2/2)
NJM062V (TE2)
IC14 (1/2)
NJM062V (TE2)
IC14 (2/2)
NJM062V (TE2)
Q1
2SC4177-T1L5L6

1
2
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4
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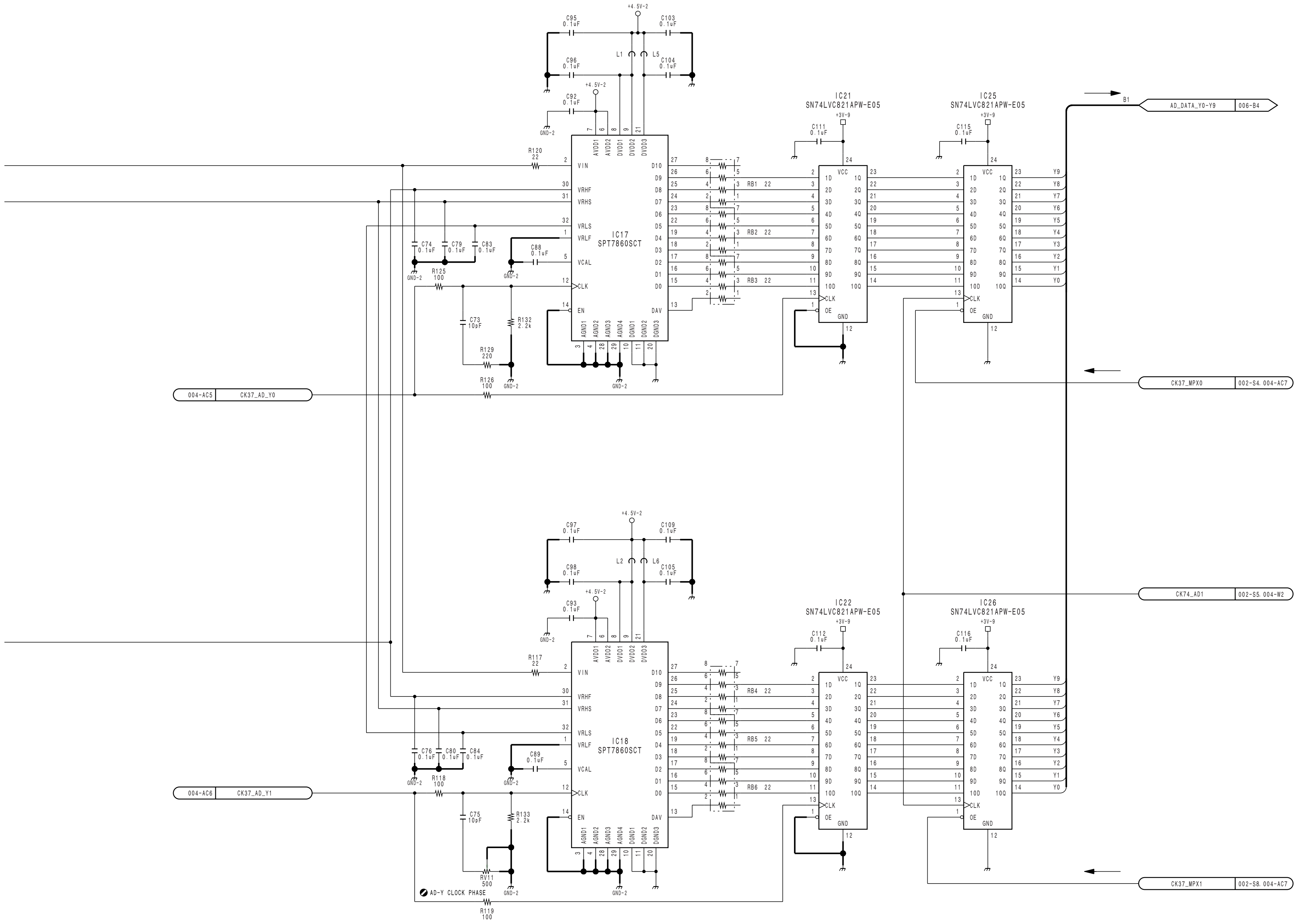
5-4 (a)

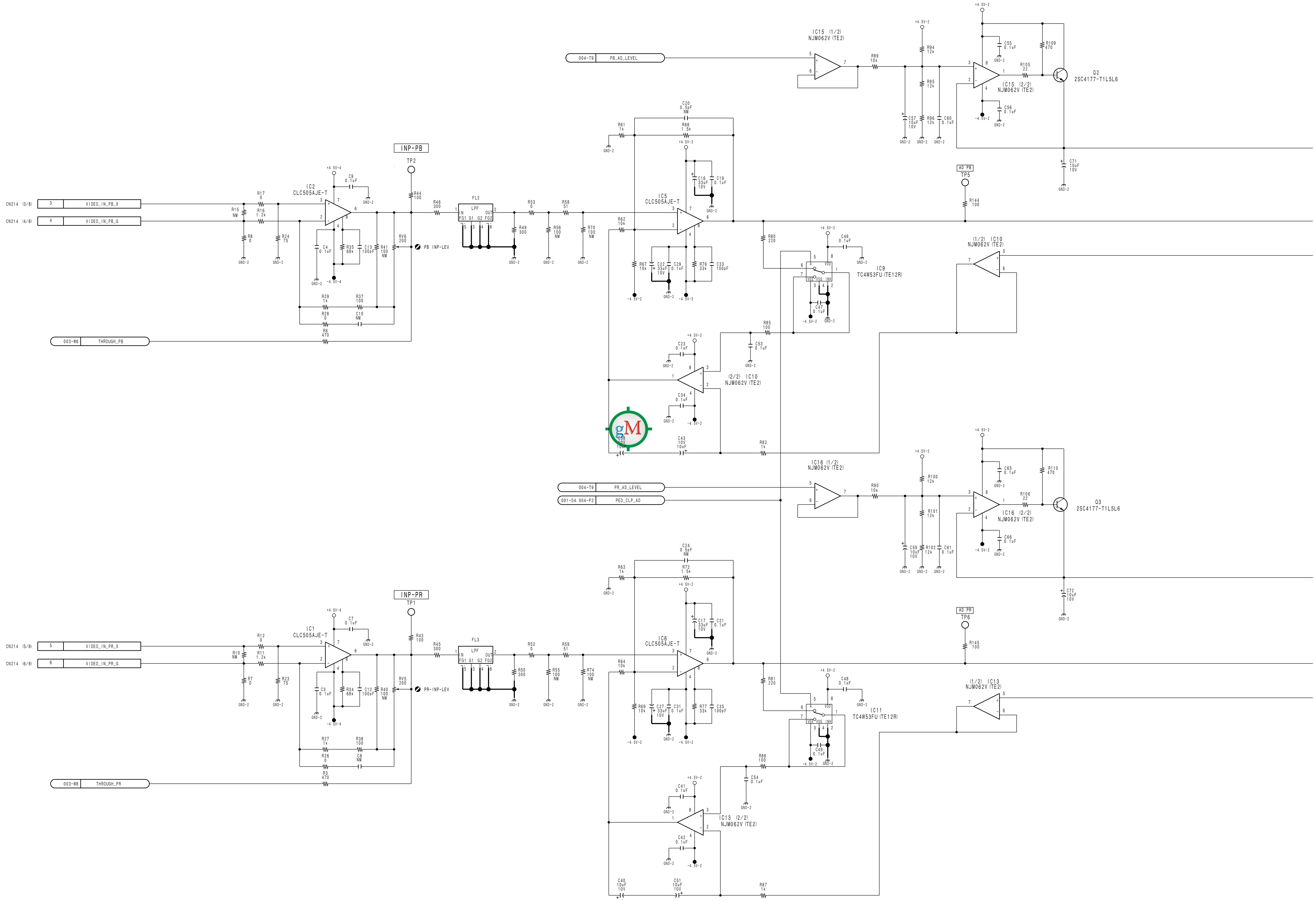
A B C D E F G H

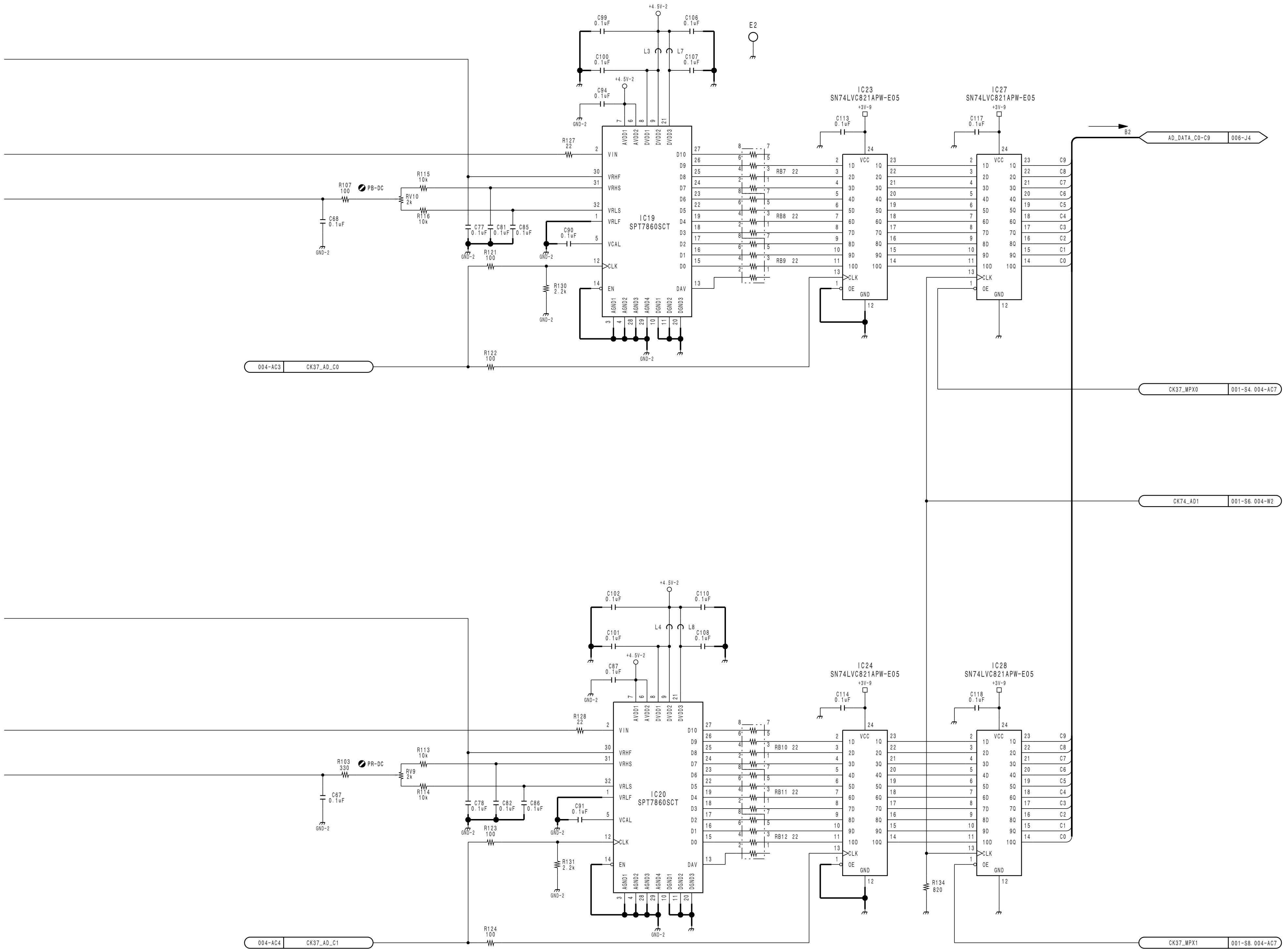

IC17
SPT7860SCT
IC18
SPT7860SCT
IC21
SN74LVC821APW-E05
IC25
SN74LVC821APW-E05
IC22
SN74LVC821APW-E05
IC26
SN74LVC821APW-E05
+4.5V-2
+3V-9
GND-2
B1
AD_DATA_Y0-Y9
006-B4
CK37_MPX0
002-S4, 004-AC7
CK74_AD1
002-S5, 004-W2
CK37_MPX1
002-S8, 004-AC7
004-AC5
CK37_AD_Y0
004-AC6
CK37_AD_Y1
AD-Y CLOCK PHASE
RV11
500
RB1 22
RB2 22
RB3 22
RB4 22
RB5 22
RB6 22
Y9
Y8
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0

VPR-53 (1/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_1

HDW-250 (J) : S/N 30001 through 30050


CN214 (3/8)
3 VIDEO_IN_PB_X
CN214 (4/8)
4 VIDEO_IN_PB_G
CN214 (5/8)
5 VIDEO_IN_PR_X
CN214 (6/8)
6 VIDEO_IN_PR_G
003-W6 THROUGH_PB
003-W8 THROUGH_PR
004-T9 PB_AD_LEVEL
004-T9 PR_AD_LEVEL
001-D4, 004-P2 PED_CLP_AD
IC2 CLC505AJE-T
IC1 CLC505AJE-T
IC5 CLC505AJE-T
IC6 CLC505AJE-T
INP-PB
TP2
INP-PR
TP1
PB INP-LEV
PR-INP-LEV
FL2 LPF
FL3 LPF
IN OUT FG1 G1 G2 FG2
IC15 (1/2) NJM062V (TE2)
IC15 (2/2) NJM062V (TE2)
IC16 (1/2) NJM062V (TE2)
IC16 (2/2) NJM062V (TE2)
Q2 2SC4177-T1L5L6
Q3 2SC4177-T1L5L6
IC9 TC4W53FU (TE12R)
IC11 TC4W53FU (TE12R)
(1/2) IC10 NJM062V (TE2)
(2/2) IC10 NJM062V (TE2)
(1/2) IC13 NJM062V (TE2)
IC13 (2/2) NJM062V (TE2)
AD PB TP5
AD PR TP6
+4.5V-2
-4.5V-2
+4.5V-4
-4.5V-4
GND-2
R144 100
R145 100
R89 10k
R90 10k
R94 12k
R95 12k
R96 12k
R100 12k
R101 12k
R102 12k
R105 22
R106 22
R109 470
R110 470
C71 10uF 10V
C72 10uF 10V
1
2
3
4
5
A
B
C
D
E
F
G
H

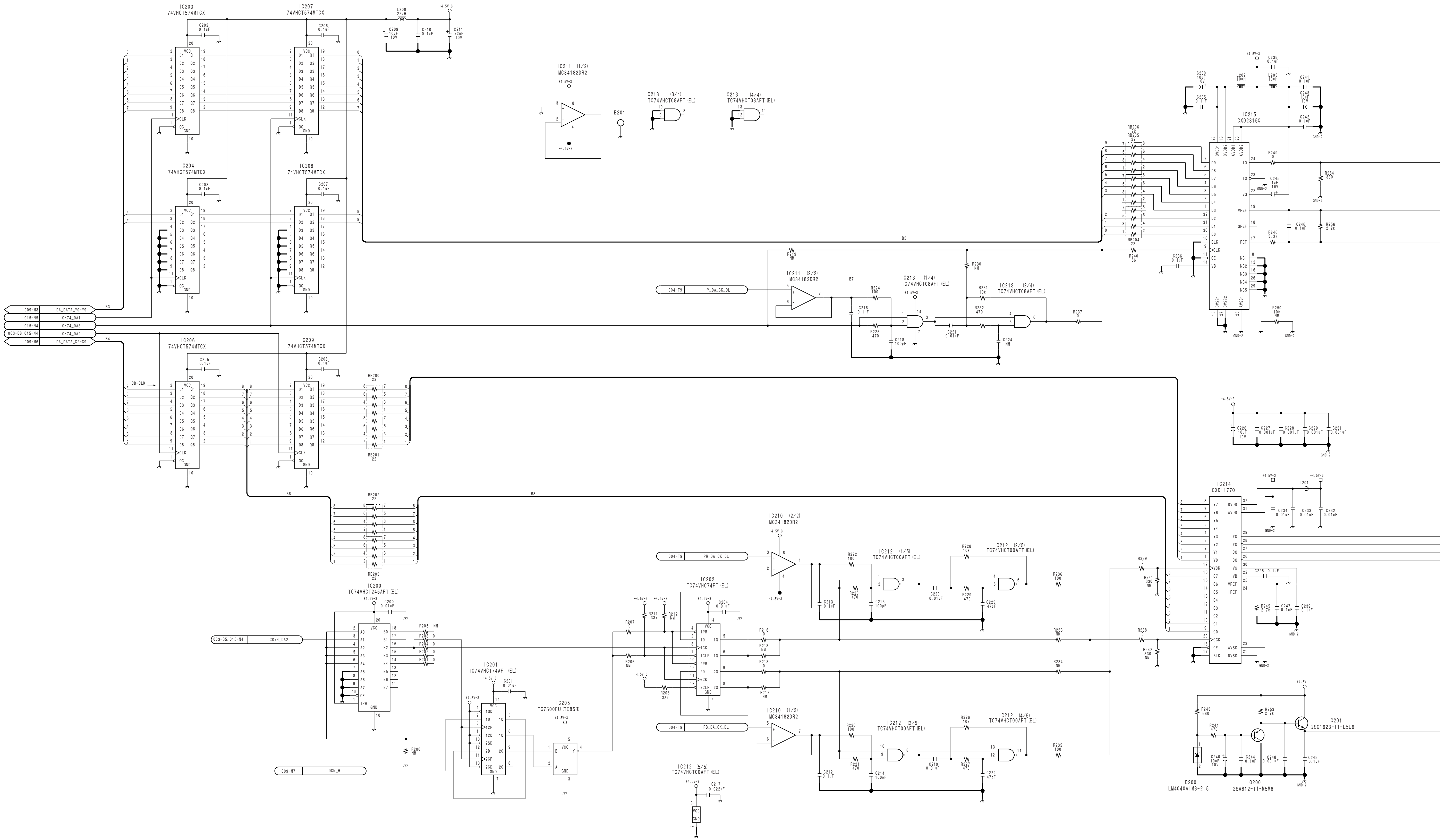

IC19
SPT7860SCT
IC20
SPT7860SCT
IC23
SN74LVC821APW-E05
IC27
SN74LVC821APW-E05
IC24
SN74LVC821APW-E05
IC28
SN74LVC821APW-E05
+4.5V-2
+3V-9
GND-2
E2
B2
AD_DATA_C0-C9
006-J4
CK37_MPX0
001-S4.004-AC7
CK74_AD1
001-S6.004-W2
CK37_MPX1
001-S8.004-AC7
004-AC3
CK37_AD_C0
004-AC4
CK37_AD_C1
PB-DC
PR-DC
R107 100
R103 330
R115 10k
R116 10k
R113 10k
R114 10k
RV10 2k
RV9 2k
R127 22
R128 22
R121 100
R122 100
R123 100
R124 100
R130 2.2k
R131 2.2k
R134 820
RB7 22
RB8 22
RB9 22
RB10 22
RB11 22
RB12 22
C68 0.1uF
C67 0.1uF
C77 0.1uF
C81 0.1uF
C85 0.1uF
C78 0.1uF
C82 0.1uF
C86 0.1uF
C90 0.1uF
C91 0.1uF
C94 0.1uF
C87 0.1uF
C99 0.1uF
C100 0.1uF
C106 0.1uF
C107 0.1uF
C102 0.1uF
C101 0.1uF
C110 0.1uF
C108 0.1uF
C113 0.1uF
C117 0.1uF
C114 0.1uF
C118 0.1uF
L3
L7
L4
L8
VIN
VRHF
VRHS
VRLS
VRLF
VCAL
CLK
EN
AVDD1
AVDD2
DVDD1
DVDD2
DVDD3
AGND1
AGND2
AGND3
AGND4
DGND1
DGND2
DGND3
D10
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
DAV
VCC
GND
OE
1D
2D
3D
4D
5D
6D
7D
8D
9D
10D
1Q
2Q
3Q
4Q
5Q
6Q
7Q
8Q
9Q
10Q
C9
C8
C7
C6
C5
C4
C3
C2
C1
C0

VPR-53 (2/20)

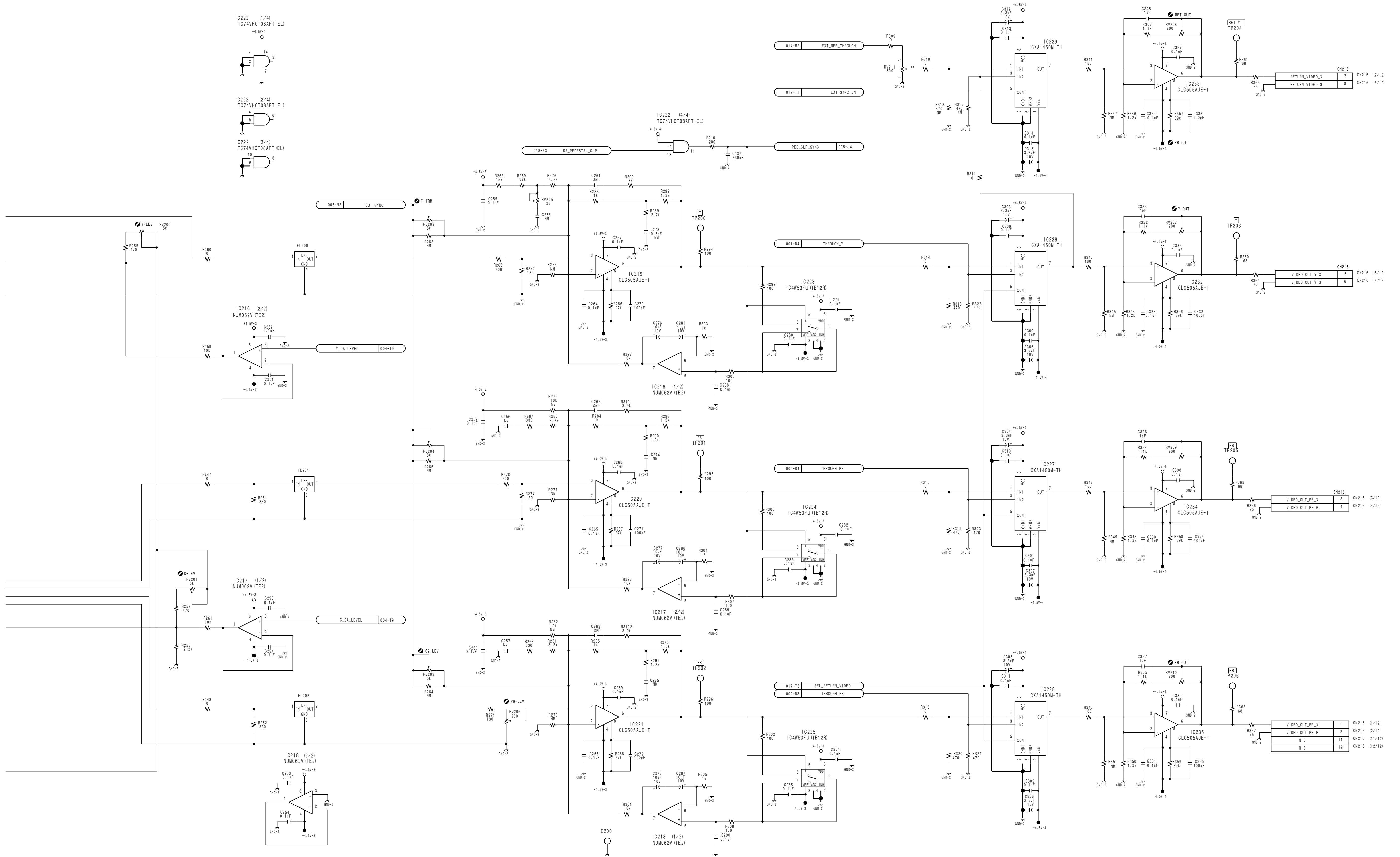
BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_2

VPR-53 (3/20)

HDW-250 (J) : S/N 30001 through 30050


IC203
74VHCT574MTCX
IC207
74VHCT574MTCX
IC204
74VHCT574MTCX
IC208
74VHCT574MTCX
IC206
74VHCT574MTCX
IC209
74VHCT574MTCX
IC211 (1/2)
MC34182DR2
IC211 (2/2)
MC34182DR2
IC213 (3/4)
TC74VHCT08AFT (EL)
IC213 (4/4)
TC74VHCT08AFT (EL)
IC213 (1/4)
TC74VHCT08AFT (EL)
IC213 (2/4)
TC74VHCT08AFT (EL)
IC215
CXD2315Q
IC214
CXD1177Q
IC200
TC74VHCT245AFT (EL)
IC201
TC74VHCT74AFT (EL)
IC202
TC74VHC74FT (EL)
IC205
TC7S00FU (TE85R)
IC210 (2/2)
MC34182DR2
IC210 (1/2)
MC34182DR2
IC212 (1/5)
TC74VHCT00AFT (EL)
IC212 (2/5)
TC74VHCT00AFT (EL)
IC212 (3/5)
TC74VHCT00AFT (EL)
IC212 (4/5)
TC74VHCT00AFT (EL)
IC212 (5/5)
TC74VHCT00AFT (EL)
D200
LM4040AIM3-2.5
Q200
2SA812-T1-M5M6
Q201
2SC1623-T1-L5L6
E201
L200
L201
L202
L203
009-M3
DA_DATA_Y0-Y9
015-N5
CK74_DA1
015-N4
CK74_DA3
003-D8, 015-N4
CK74_DA2
009-M6
DA_DATA_C2-C9
004-T9
Y_DA_CK_DL
004-T9
PR_DA_CK_DL
004-T9
PB_DA_CK_DL
003-B5, 015-N4
CK74_DA2
009-M7
DCN_H
CO-CLK
B3
B4
B5
B6
B7
B8
+4.5V-3
-4.5V-3
+4.5V
GND-2
1
2
3
4
5
A
B
C
D
E
F
G
H

5-8 (a)

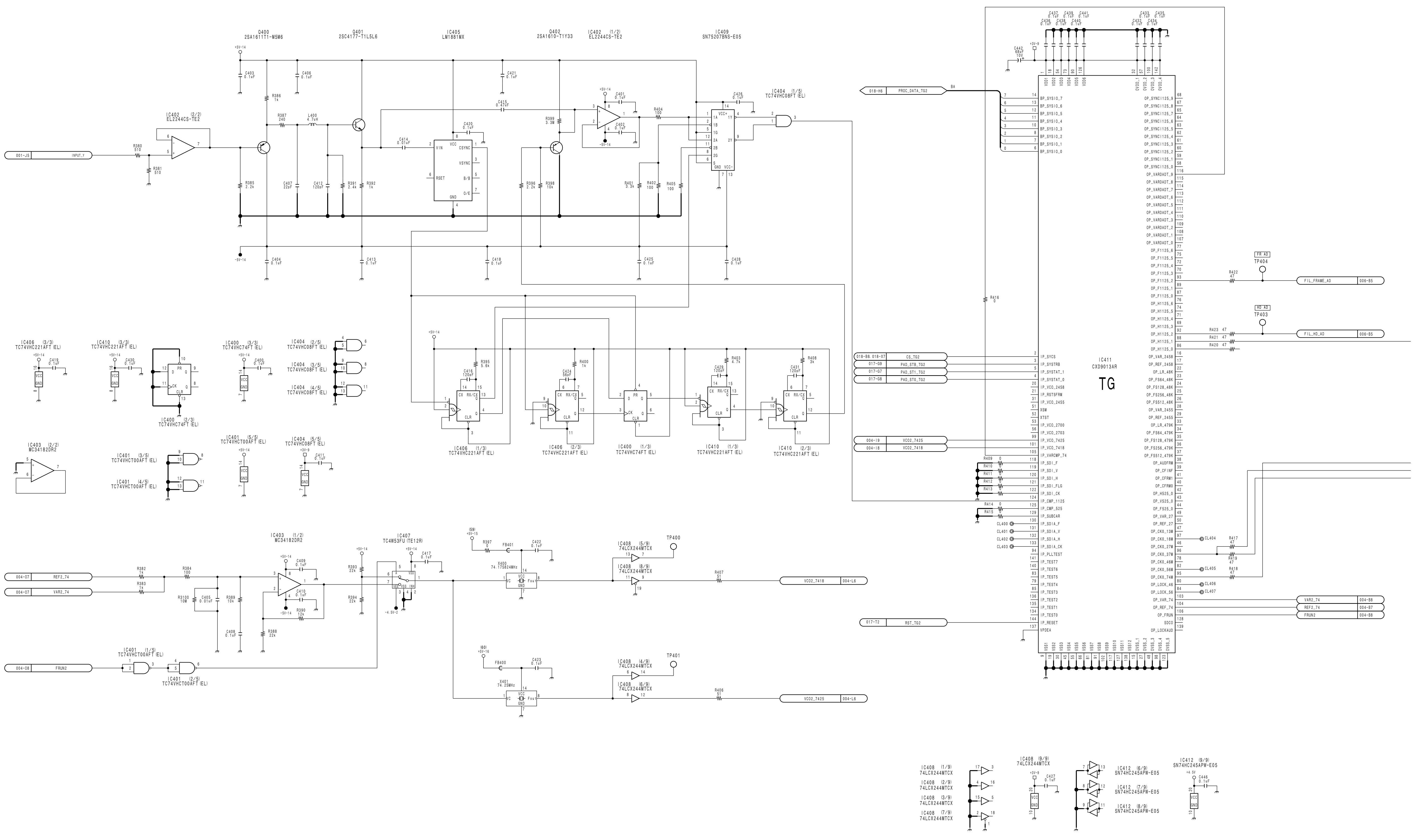

IC222 (1/4) TC74VHCT08AFT (EL)
IC222 (2/4) TC74VHCT08AFT (EL)
IC222 (3/4) TC74VHCT08AFT (EL)
IC222 (4/4) TC74VHCT08AFT (EL)
018-X3 DA_PEDESTAL_CLP
PED_CLP_SYNC 005-J4
014-B2 EXT_REF_THROUGH
017-T1 EXT_SYNC_EN
IC229 CXA1450M-TH
IC233 CLC505AJE-T
RET OUT
RET Y TP204
RETURN_VIDEO_X
RETURN_VIDEO_G
CN216
005-N3 OUT_SYNC
F-TRM
Y-LEV RV200 5k
FL200 LPF
IC219 CLC505AJE-T
Y TP200
IC223 TC4W53FU (TE12R)
001-D4 THROUGH_Y
IC226 CXA1450M-TH
IC232 CLC505AJE-T
Y OUT
Y TP203
VIDEO_OUT_Y_X
VIDEO_OUT_Y_G
IC216 (2/2) NJM062V (TE2)
Y_DA_LEVEL 004-T9
IC216 (1/2) NJM062V (TE2)
FL201 LPF
IC220 CLC505AJE-T
PB TP201
IC224 TC4W53FU (TE12R)
002-D4 THROUGH_PB
IC227 CXA1450M-TH
IC234 CLC505AJE-T
PB OUT
PB TP205
VIDEO_OUT_PB_X
VIDEO_OUT_PB_G
C-LEV
IC217 (1/2) NJM062V (TE2)
C_DA_LEVEL 004-T9
IC217 (2/2) NJM062V (TE2)
C2-LEV
PR-LEV
FL202 LPF
IC221 CLC505AJE-T
PR TP202
IC225 TC4W53FU (TE12R)
017-T5 SEL_RETURN_VIDEO
002-D8 THROUGH_PR
IC228 CXA1450M-TH
IC235 CLC505AJE-T
PR OUT
PR TP206
VIDEO_OUT_PR_X
VIDEO_OUT_PR_R
N.C
N.C
IC218 (2/2) NJM062V (TE2)
IC218 (1/2) NJM062V (TE2)
E200
1
2
3
4
5

VPR-53 (3/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_3

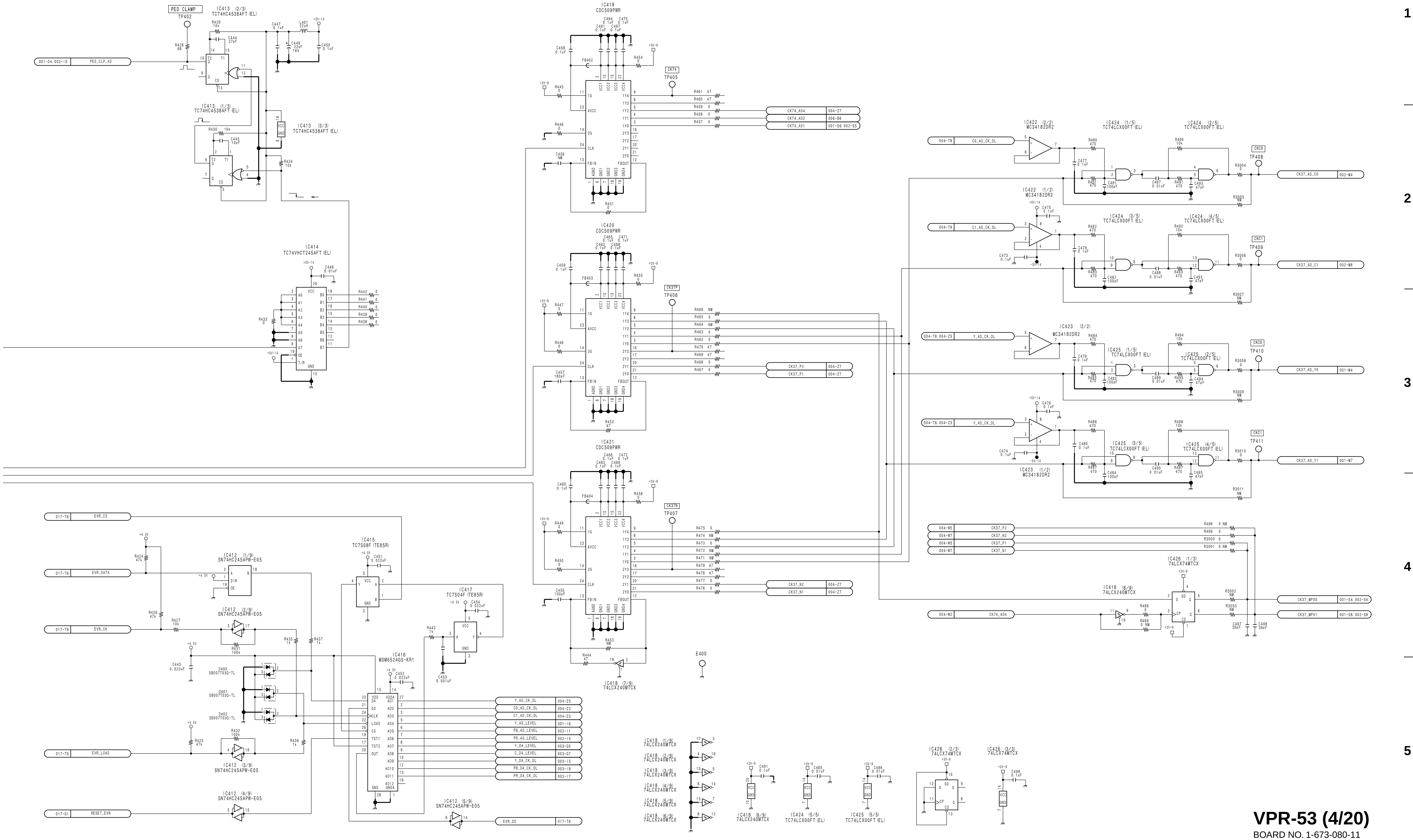
VPR-53 (4/20)

HDW-250 (J) : S/N 30001 through 30050


1
2
3
4
5
Q400 2SA1611T1-M5M6
Q401 2SC4177-T1L5L6
IC405 LM1881MX
Q402 2SA1610-T1Y33
IC402 (1/2) EL2244CS-TE2
IC409 SN75207BNS-E05
IC402 (2/2) EL2244CS-TE2
IC404 (1/5) TC74VHC08FT (EL)
IC411 CXD9013AR
TG
001-J5
INPUT_Y
018-H6
PROC_DATA_TG2
IC406 (3/3) TC74VHC221AFT (EL)
IC410 (3/3) TC74VHC221AFT (EL)
IC400 (2/3) TC74VHC74FT (EL)
IC400 (3/3) TC74VHC74FT (EL)
IC404 (2/5) TC74VHC08FT (EL)
IC404 (3/5) TC74VHC08FT (EL)
IC404 (4/5) TC74VHC08FT (EL)
IC406 (1/3) TC74VHC221AFT (EL)
IC406 (2/3) TC74VHC221AFT (EL)
IC400 (1/3) TC74VHC74FT (EL)
IC410 (1/3) TC74VHC221AFT (EL)
IC410 (2/3) TC74VHC221AFT (EL)
IC403 (2/2) MC34182DR2
IC401 (3/5) TC74VHCT00AFT (EL)
IC401 (4/5) TC74VHCT00AFT (EL)
IC401 (5/5) TC74VHCT00AFT (EL)
IC404 (5/5) TC74VHC08FT (EL)
018-B8, 018-X7
CS_TG2
017-G9
PAD_STB_TG2
017-G7
PAD_ST1_TG2
017-G8
PAD_ST0_TG2
004-I9
VCO2_7425
004-I8
VCO2_7418
FR AD
TP404
FIL_FRAME_AD
006-B5
HD AD
TP403
FIL_HD_AD
006-B5
IC403 (1/2) MC34182DR2
IC407 TC4W53FU (TE12R)
X400 74.175824MHz
X401 74.25MHz
IC408 (5/9) 74LCX244MTCX
IC408 (8/9) 74LCX244MTCX
IC408 (4/9) 74LCX244MTCX
IC408 (6/9) 74LCX244MTCX
TP400
TP401
004-O7
REF2_74
004-O7
VAR2_74
004-O8
FRUN2
IC401 (1/5) TC74VHCT00AFT (EL)
IC401 (2/5) TC74VHCT00AFT (EL)
VCO2_7418
004-L6
VCO2_7425
004-L6
017-T2
RST_TG2
VAR2_74
004-B8
REF2_74
004-B7
FRUN2
004-B8
IC408 (1/9) 74LCX244MTCX
IC408 (2/9) 74LCX244MTCX
IC408 (3/9) 74LCX244MTCX
IC408 (7/9) 74LCX244MTCX
IC408 (9/9) 74LCX244MTCX
IC412 (6/9) SN74HC245APW-E05
IC412 (7/9) SN74HC245APW-E05
IC412 (8/9) SN74HC245APW-E05
IC412 (9/9) SN74HC245APW-E05

5-10 (a)

A B C D E F G H


PED CLAMP
TP402
IC413 (2/3) TC74HC4538AFT (EL)
IC413 (1/3) TC74HC4538AFT (EL)
IC413 (3/3) TC74HC4538AFT (EL)
IC414 TC74VHCT245AFT (EL)
IC419 CDC509PWR
IC420 CDC509PWR
IC421 CDC509PWR
TP405
TP406
TP407
IC422 (2/2) MC34182DR2
IC422 (1/2) MC34182DR2
IC423 (2/2) MC34182DR2
IC423 (1/2) MC34182DR2
IC424 (1/5) TC74LCX00FT (EL)
IC424 (2/5) TC74LCX00FT (EL)
IC424 (3/5) TC74LCX00FT (EL)
IC424 (4/5) TC74LCX00FT (EL)
IC425 (1/5) TC74LCX00FT (EL)
IC425 (2/5) TC74LCX00FT (EL)
IC425 (3/5) TC74LCX00FT (EL)
IC425 (4/5) TC74LCX00FT (EL)
TP408
TP409
TP410
TP411
CK37_AD_C0
CK37_AD_C1
CK37_AD_Y0
CK37_AD_Y1
CK74_AD4
CK74_AD2
CK74_AD1
CK37_P2
CK37_P1
CK37_N2
CK37_N1
IC426 (1/3) 74LCX74MTCX
IC418 (8/9) 74LCX240MTCX
IC418 (7/9) 74LCX240MTCX
CK37_MPX0
CK37_MPX1
E400
IC415 TC7S08F (TE85R)
IC417 TC7S04F (TE85R)
IC416 MSM6524GS-KR1
IC412 (1/9) SN74HC245APW-E05
IC412 (2/9) SN74HC245APW-E05
IC412 (3/9) SN74HC245APW-E05
IC412 (4/9) SN74HC245APW-E05
IC412 (5/9) SN74HC245APW-E05
D400 SB007T03Q-TL
D401 SB007T03Q-TL
D402 SB007T03Q-TL
EVR_CS
EVR_DATA
EVR_CK
EVR_LOAD
RESET_EVR
EVR_DO
Y_AD_CK_DL
C0_AD_CK_DL
C1_AD_CK_DL
Y_AD_LEVEL
PB_AD_LEVEL
PR_AD_LEVEL
Y_DA_LEVEL
C_DA_LEVEL
Y_DA_CK_DL
PB_DA_CK_DL
PR_DA_CK_DL
IC418 (1/9) 74LCX240MTCX
IC418 (2/9) 74LCX240MTCX
IC418 (3/9) 74LCX240MTCX
IC418 (4/9) 74LCX240MTCX
IC418 (5/9) 74LCX240MTCX
IC418 (6/9) 74LCX240MTCX
IC418 (9/9) 74LCX240MTCX
IC424 (5/5) TC74LCX00FT (EL)
IC425 (5/5) TC74LCX00FT (EL)
IC426 (2/3) 74LCX74MTCX
IC426 (3/3) 74LCX74MTCX
1
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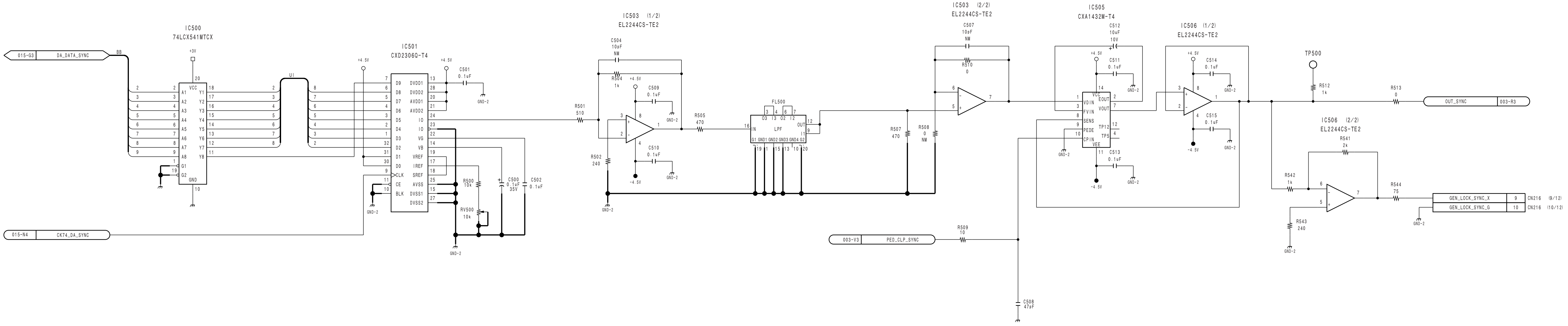
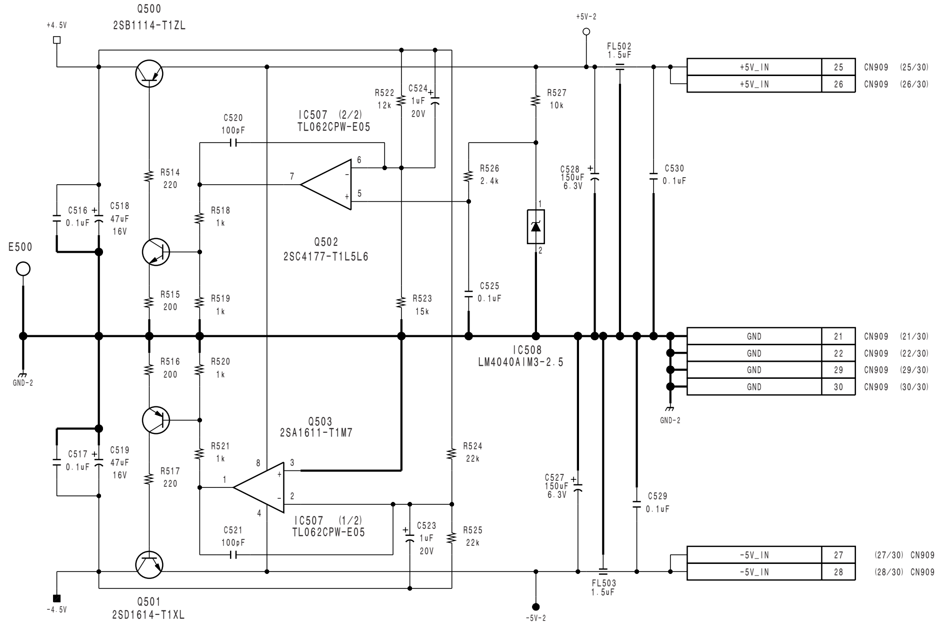
VPR-53 (4/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_4

HDW-250 (J) : S/N 30001 through 30050


015-G3
DA_DATA_SYNC
BB
IC500
74LCX541MTCX
+3V
VCC
A1
A2
A3
A4
A5
A6
A7
A8
G1
G2
GND
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
UI
IC501
CXD2306Q-T4
+4.5V
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
CLK
CE
BLK
DVDD1
DVDD2
AVDD1
AVDD2
IO
IO
VG
VB
VREF
IREF
SREF
AVSS
DVSS1
DVSS2
GND-2
C501
0.1uF
R500
10k
RV500
10k
C500
0.1uF
35V
C502
0.1uF
015-N4
CK74_DA_SYNC
R501
510
IC503 (1/2)
EL2244CS-TE2
C504
10pF
NM
R504
1k
C509
0.1uF
C510
0.1uF
-4.5V
R502
240
R505
470
FL500
LPF
IN
OUT
O3
I3
O2
I2
I1
G1
GND1
GND2
GND3
GND4
G2
IC503 (2/2)
EL2244CS-TE2
C507
10pF
NM
R510
0
R507
470
R508
0
NM
003-V3
PED_CLP_SYNC
R509
10
C508
47pF
IC505
CXA1432M-T4
C512
10uF
10V
C511
0.1uF
C513
0.1uF
VCC
VDIN
FVIN
SENS
PEDE
CPIN
VEE
EOUT
VOUT
TP12
TP5
IC506 (1/2)
EL2244CS-TE2
C514
0.1uF
C515
0.1uF
TP500
R512
1k
R513
0
OUT_SYNC
003-R3
IC506 (2/2)
EL2244CS-TE2
R541
2k
R542
1k
R543
240
R544
75
GEN_LOCK_SYNC_X
9
CN216 (9/12)
GEN_LOCK_SYNC_G
10
CN216 (10/12)


Q500
2SB1114-T1ZL
+4.5V
-4.5V
Q501
2SD1614-T1XL
E500
GND-2
C516
0.1uF
C518
47uF
16V
C517
0.1uF
C519
47uF
16V
R514
220
R515
200
R516
200
R517
220
R518
1k
R519
1k
R520
1k
R521
1k
C520
100pF
IC507 (2/2)
TL062CPW-E05
Q502
2SC4177-T1L5L6
Q503
2SA1611-T1M7
C521
100pF
IC507 (1/2)
TL062CPW-E05
R522
12k
C524
1uF
20V
R523
15k
C523
1uF
20V
R524
22k
R525
22k
R526
2.4k
C525
0.1uF
R527
10k
IC508
LM4040AIM3-2.5
+5V-2
-5V-2
FL502
1.5uF
FL503
1.5uF
C528
150uF
6.3V
C527
150uF
6.3V
C530
0.1uF
C529
0.1uF
+5V_IN
25
CN909 (25/30)
+5V_IN
26
CN909 (26/30)
GND
21
CN909 (21/30)
GND
22
CN909 (22/30)
GND
29
CN909 (29/30)
GND
30
CN909 (30/30)
-5V_IN
27
(27/30) CN909
-5V_IN
28
(28/30) CN909

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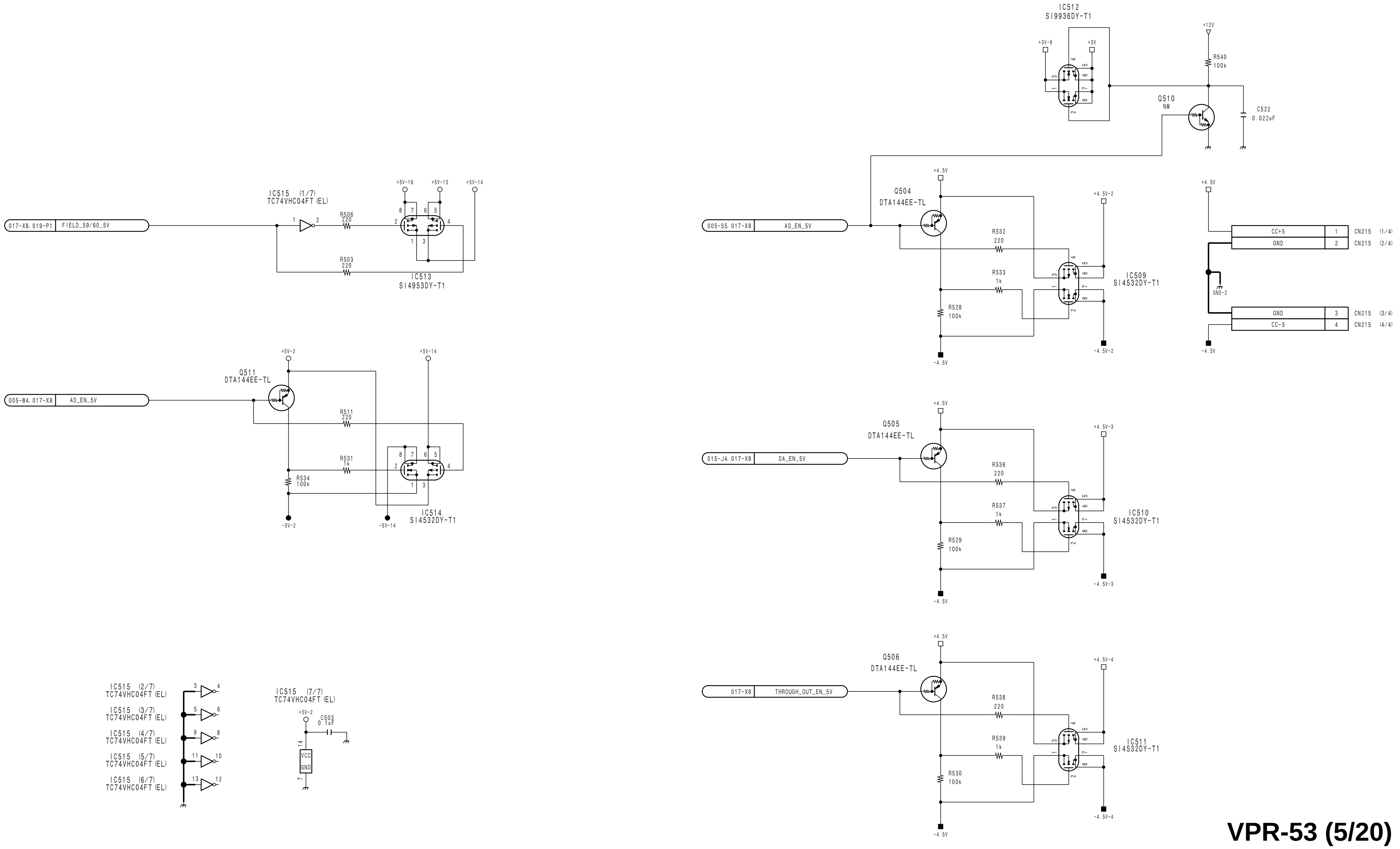
A B C D E F G H

VPR-53 (5/20)


017-X8, 019-P1
FIELD_59/60_5V
IC515 (1/7)
TC74VHC04FT (EL)
R506
220
R503
220
+5V-16
+5V-15
+5V-14
IC513
SI4953DY-T1
005-W4, 017-X8
AD_EN_5V
Q511
DTA144EE-TL
+5V-2
+5V-14
R511
220
R531
1k
R534
100k
-5V-2
-5V-14
IC514
SI4532DY-T1
IC515 (2/7)
TC74VHC04FT (EL)
IC515 (3/7)
TC74VHC04FT (EL)
IC515 (4/7)
TC74VHC04FT (EL)
IC515 (5/7)
TC74VHC04FT (EL)
IC515 (6/7)
TC74VHC04FT (EL)
IC515 (7/7)
TC74VHC04FT (EL)
+5V-2
C503
0.1uF
VCC
GND
IC512
SI9936DY-T1
+3V-9
+3V
+12V
R540
100k
Q510
NM
C522
0.022uF
005-S5, 017-X8
AD_EN_5V
Q504
DTA144EE-TL
+4.5V
R532
220
R533
1k
R528
100k
-4.5V
+4.5V-2
-4.5V-2
IC509
SI4532DY-T1
+4.5V
CC+5
1
CN215 (1/4)
GND
2
CN215 (2/4)
GND-2
GND
3
CN215 (3/4)
CC-5
4
CN215 (4/4)
-4.5V
015-J4, 017-X8
DA_EN_5V
Q505
DTA144EE-TL
+4.5V
R536
220
R537
1k
R529
100k
-4.5V
+4.5V-3
-4.5V-3
IC510
SI4532DY-T1
017-X8
THROUGH_OUT_EN_5V
Q506
DTA144EE-TL
+4.5V
R538
220
R539
1k
R530
100k
-4.5V
+4.5V-4
-4.5V-4
IC511
SI4532DY-T1

VPR-53 (5/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_5

5-13 (a)

VPR-53 (6/20)

HDW-250 (J) : S/N 30001 through 30050

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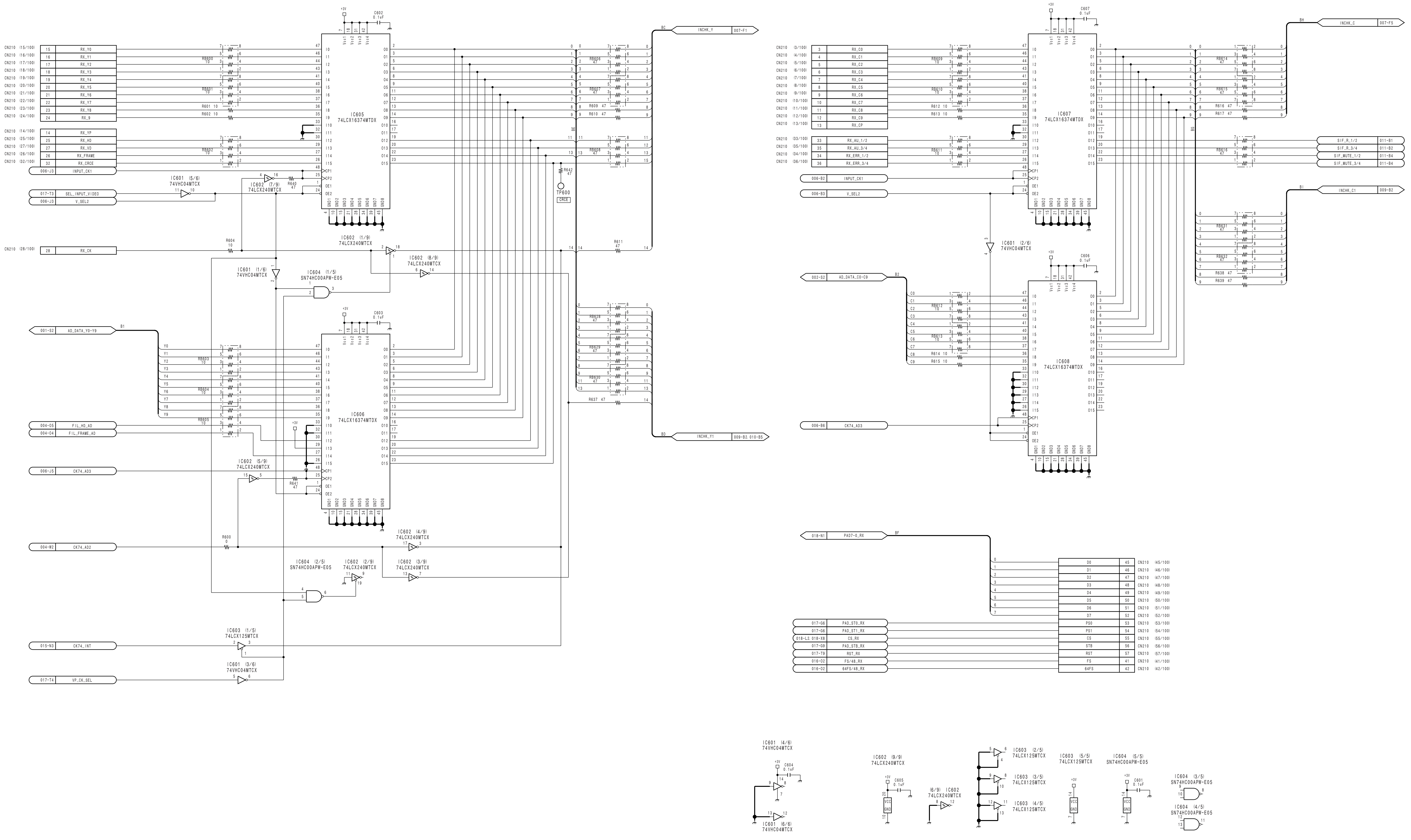
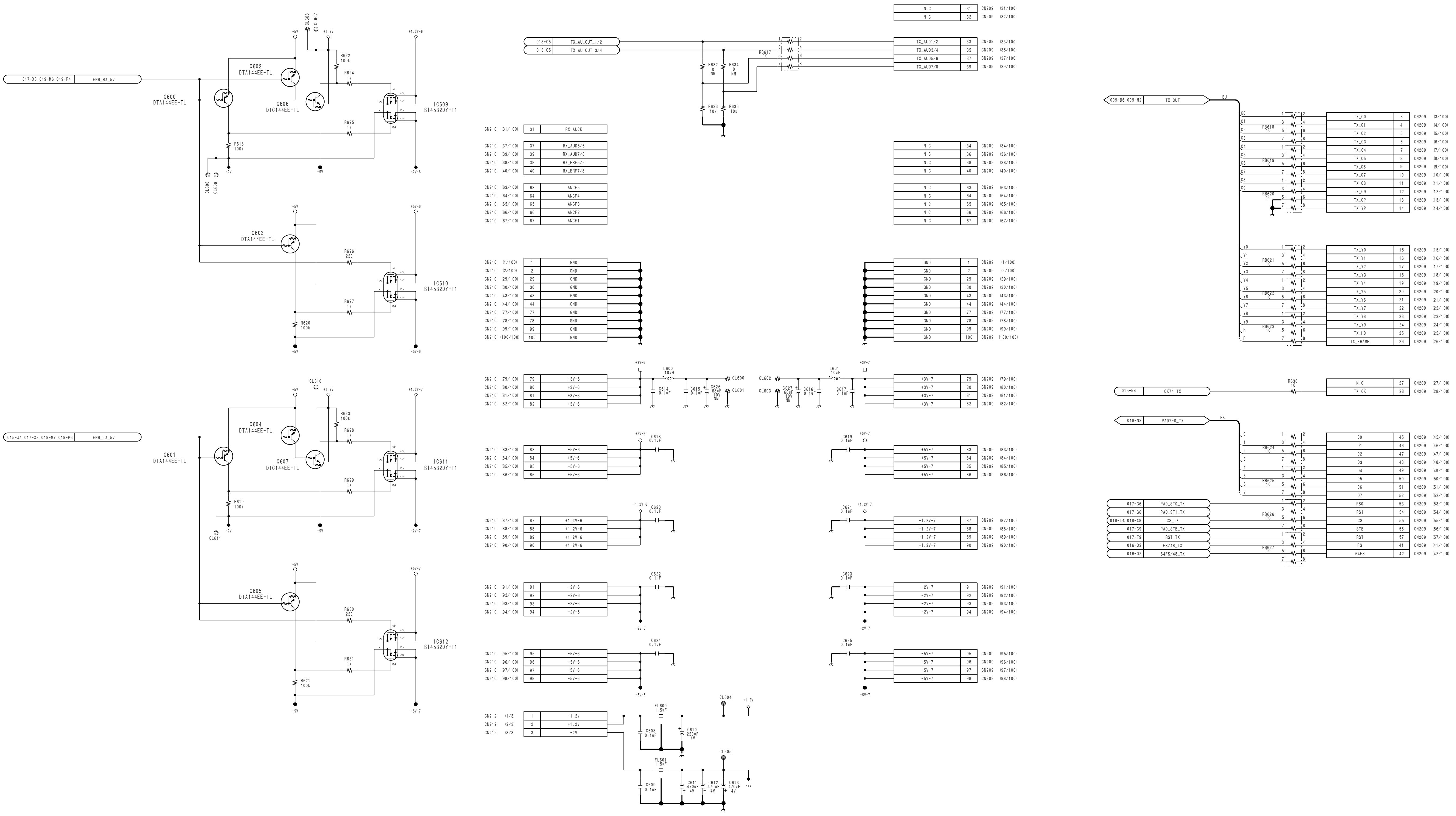

IC605
74LCX16374MTDX
IC606
74LCX16374MTDX
IC607
74LCX16374MTDX
IC608
74LCX16374MTDX
IC601 (1/6) 74VHC04MTCX
IC601 (2/6) 74VHC04MTCX
IC601 (3/6) 74VHC04MTCX
IC601 (4/6) 74VHC04MTCX
IC601 (5/6) 74VHC04MTCX
IC601 (6/6) 74VHC04MTCX
IC602 (1/9) 74LCX240MTCX
IC602 (2/9) 74LCX240MTCX
IC602 (3/9) 74LCX240MTCX
IC602 (4/9) 74LCX240MTCX
IC602 (5/9) 74LCX240MTCX
IC602 (6/9) 74LCX240MTCX
IC602 (7/9) 74LCX240MTCX
IC602 (8/9) 74LCX240MTCX
IC602 (9/9) 74LCX240MTCX
IC603 (1/5) 74LCX125MTCX
IC603 (2/5) 74LCX125MTCX
IC603 (3/5) 74LCX125MTCX
IC603 (4/5) 74LCX125MTCX
IC603 (5/5) 74LCX125MTCX
IC604 (1/5) SN74HC00APW-E05
IC604 (2/5) SN74HC00APW-E05
IC604 (3/5) SN74HC00APW-E05
IC604 (4/5) SN74HC00APW-E05
IC604 (5/5) SN74HC00APW-E05
INCHK_Y 007-F1
INCHK_Y1 009-B2, 010-B5
INCHK_C 007-F5
INCHK_C1 009-B2
SIF_R_1/2 011-B1
SIF_R_3/4 011-B2
SIF_MUTE_1/2 011-B4
SIF_MUTE_3/4 011-B4
RX_Y0
RX_Y1
RX_Y2
RX_Y3
RX_Y4
RX_Y5
RX_Y6
RX_Y7
RX_Y8
RX_9
RX_YP
RX_HD
RX_VD
RX_FRAME
RX_CRCE
006-J3 INPUT_CK1
017-T3 SEL_INPUT_VIDEO
006-J3 V_SEL2
CN210 (28/100) RX_CK
001-S2 AD_DATA_Y0-Y9
004-O5 FIL_HD_AD
004-O4 FIL_FRAME_AD
006-J5 CK74_AD3
004-W2 CK74_AD2
015-N3 CK74_INT
017-T4 VP_CK_SEL
RX_C0
RX_C1
RX_C2
RX_C3
RX_C4
RX_C5
RX_C6
RX_C7
RX_C8
RX_C9
RX_CP
RX_AU_1/2
RX_AU_3/4
RX_ERR_1/2
RX_ERR_3/4
006-B2 INPUT_CK1
006-B3 V_SEL2
002-S2 AD_DATA_C0-C9
006-B6 CK74_AD3
018-N1 PAD7-0_RX
017-G6 PAD_ST0_RX
017-G6 PAD_ST1_RX
018-L2, 018-X8 CS_RX
017-G9 PAD_STB_RX
017-T9 RST_RX
016-O2 FS/48_RX
016-O2 64FS/48_RX
TP600 CRCE
C602 0.1uF
C603 0.1uF
C604 0.1uF
C605 0.1uF
C606 0.1uF
C607 0.1uF
C601 0.1uF
+3V

5-14 (a)

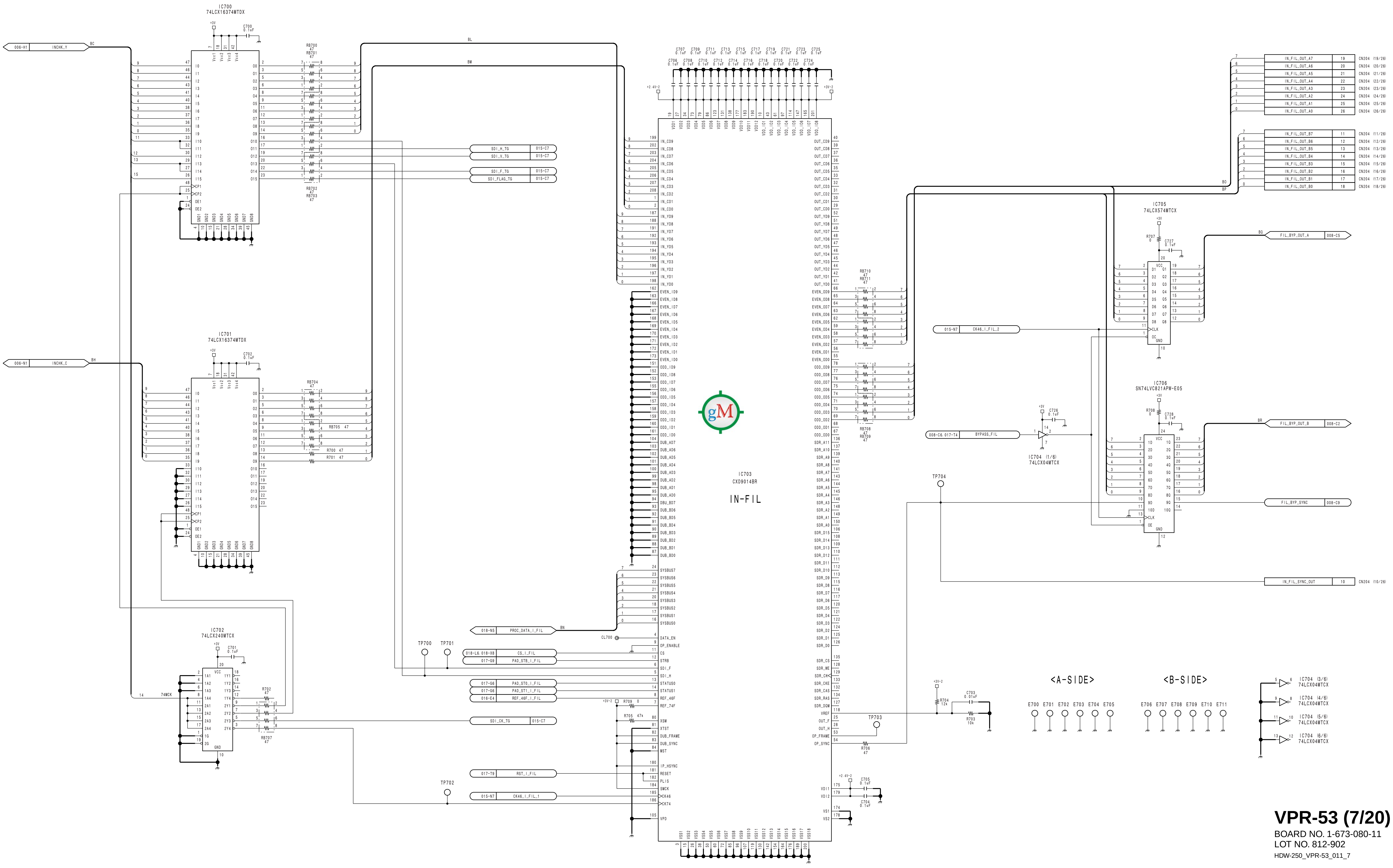
A B C D E F G H


ENB_RX_5V
ENB_TX_5V
Q600
DTA144EE-TL
Q601
DTA144EE-TL
Q602
DTA144EE-TL
Q603
DTA144EE-TL
Q604
DTA144EE-TL
Q605
DTA144EE-TL
Q606
DTC144EE-TL
Q607
DTC144EE-TL
IC609
SI4532DY-T1
IC610
SI4532DY-T1
IC611
SI4532DY-T1
IC612
SI4532DY-T1
TX_AU_OUT_1/2
TX_AU_OUT_3/4
RX_AUCK
TX_OUT
CK74_TX
PAD7-0_TX
PAD_ST0_TX
PAD_ST1_TX
CS_TX
PAD_STB_TX
RST_TX
FS/48_TX
64FS/48_TX
L600
10uH
L601
10uH
FL600
1.5uF
FL601
1.5uF
CN209
CN210
CN212

VPR-53 (6/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_6

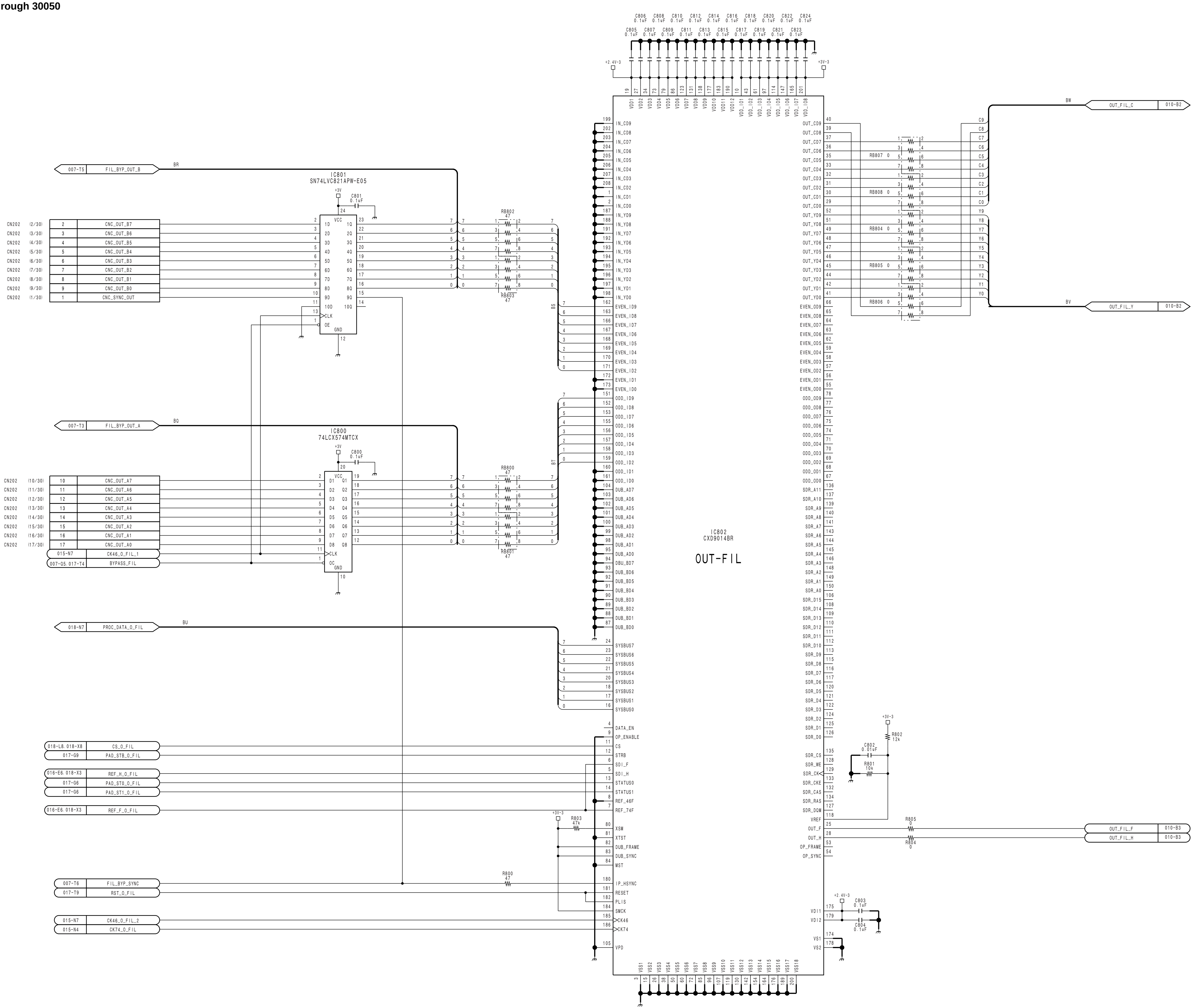
HDW-250 (J) : S/N 30001 through 30050


IC700
74LCX16374MTDX
IC701
74LCX16374MTDX
IC702
74LCX240MTCX
IC703
CXD9014BR
IN-FIL
IC705
74LCX574MTCX
IC706
SN74LVC821APW-E05
IC704 (1/6)
74LCX04MTCX
INCHK_Y
INCHK_C
SDI_H_TG
SDI_V_TG
SDI_F_TG
SDI_FLAG_TG
PROC_DATA_I_FIL
CS_I_FIL
PAD_STB_I_FIL
PAD_STO_I_FIL
PAD_ST1_I_FIL
REF_46F_I_FIL
SDI_CK_TG
RST_I_FIL
CK46_I_FIL_1
CK46_I_FIL_2
BYPASS_FIL
FIL_BYP_OUT_A
FIL_BYP_OUT_B
FIL_BYP_SYNC
IN_FIL_SYNC_OUT
IN_FIL_OUT_A7
IN_FIL_OUT_A6
IN_FIL_OUT_A5
IN_FIL_OUT_A4
IN_FIL_OUT_A3
IN_FIL_OUT_A2
IN_FIL_OUT_A1
IN_FIL_OUT_A0
IN_FIL_OUT_B7
IN_FIL_OUT_B6
IN_FIL_OUT_B5
IN_FIL_OUT_B4
IN_FIL_OUT_B3
IN_FIL_OUT_B2
IN_FIL_OUT_B1
IN_FIL_OUT_B0
TP700
TP701
TP702
TP703
TP704
<A-SIDE>
E700 E701 E702 E703 E704 E705
<B-SIDE>
E706 E707 E708 E709 E710 E711
IC704 (3/6) 74LCX04MTCX
IC704 (4/6) 74LCX04MTCX
IC704 (5/6) 74LCX04MTCX
IC704 (6/6) 74LCX04MTCX
1
2
3
4
5
A
B
C
D
E
F
G
H

VPR-53 (7/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_7

HDW-250 (J) : S/N 30001 through 30050

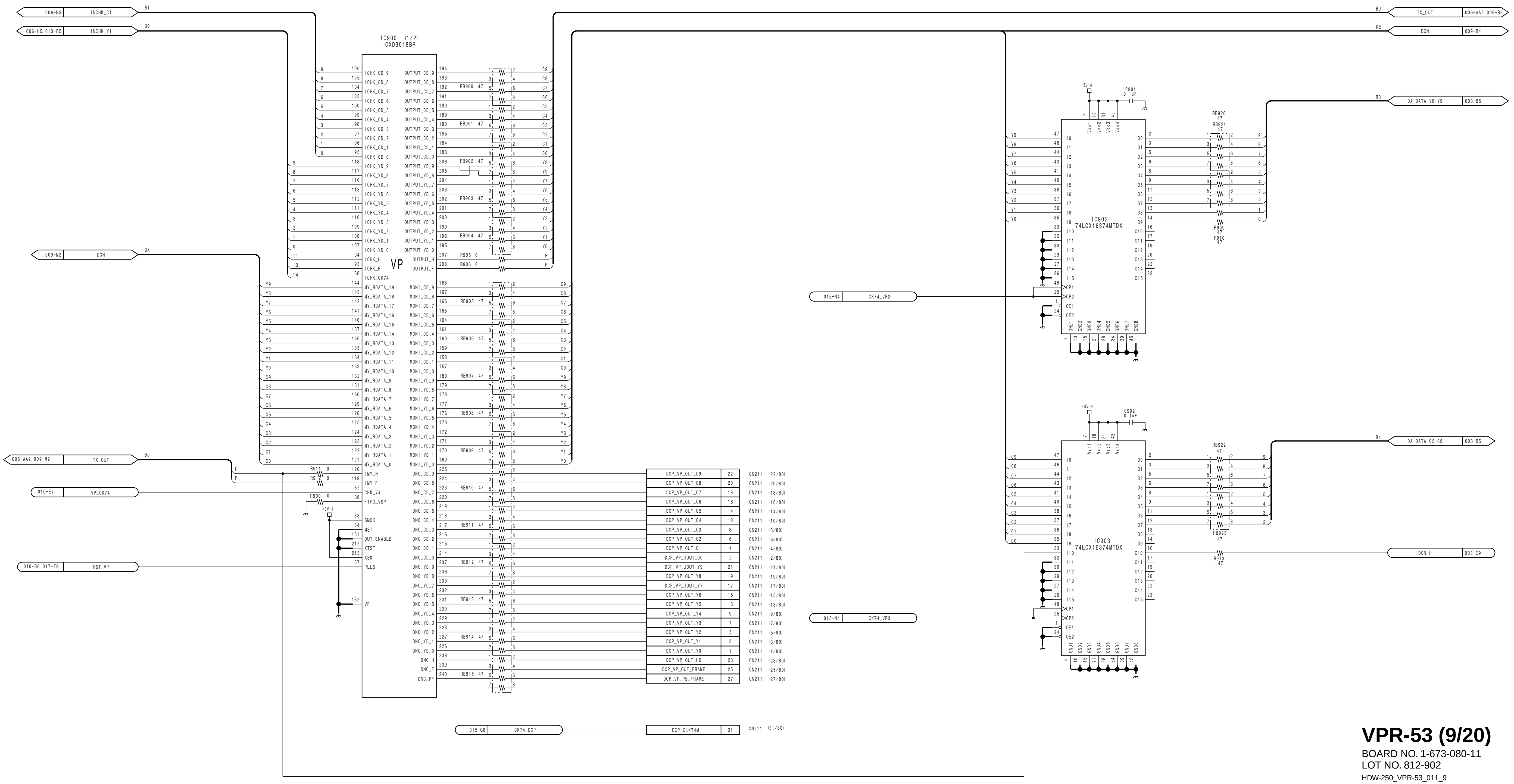

IC801
SN74LVC821APW-E05
IC800
74LCX574MTCX
IC802
CXD9014BR
OUT-FIL
FIL_BYP_OUT_B
FIL_BYP_OUT_A
PROC_DATA_O_FIL
CNC_OUT_B7
CNC_OUT_B6
CNC_OUT_B5
CNC_OUT_B4
CNC_OUT_B3
CNC_OUT_B2
CNC_OUT_B1
CNC_OUT_B0
CNC_SYNC_OUT
CNC_OUT_A7
CNC_OUT_A6
CNC_OUT_A5
CNC_OUT_A4
CNC_OUT_A3
CNC_OUT_A2
CNC_OUT_A1
CNC_OUT_A0
CK46_O_FIL_1
BYPASS_FIL
CS_O_FIL
PAD_STB_O_FIL
REF_H_O_FIL
PAD_ST0_O_FIL
PAD_ST1_O_FIL
REF_F_O_FIL
FIL_BYP_SYNC
RST_O_FIL
CK46_O_FIL_2
CK74_O_FIL
OUT_FIL_C
OUT_FIL_Y
OUT_FIL_F
OUT_FIL_H
RB800
RB801
RB802
RB803
RB804
RB805
RB806
RB807
RB808
R800
R801
R802
R803
R804
R805
C800
C801
C802
C803
C804
C805 - C824 0.1uF
+2.4V-3
+3V-3
+3V

VPR-53 (8/20)
BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_8

1
2
3
4
5

A B C D E F G H

HDW-250 (J) : S/N 30001 through 30050

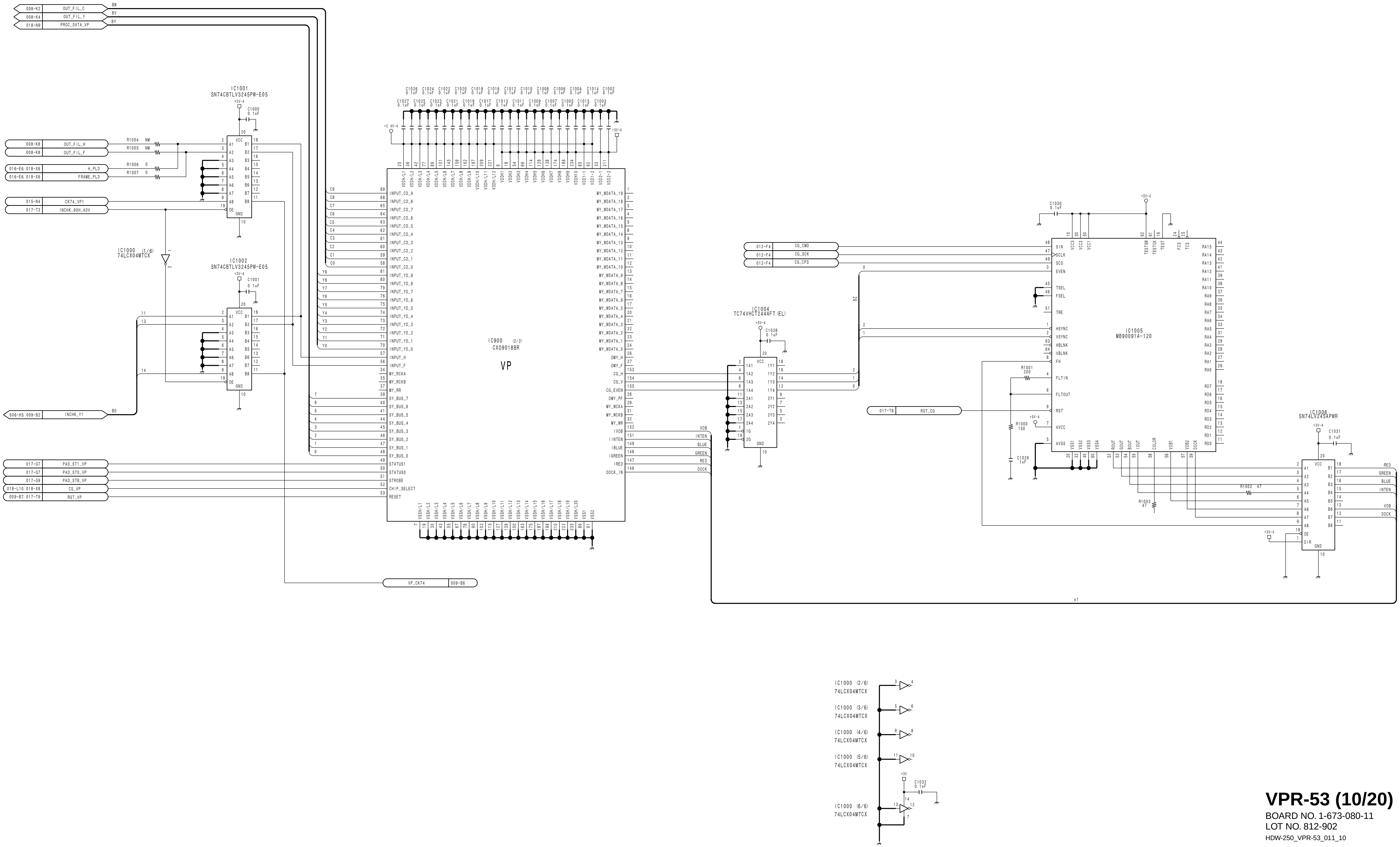

1
2
3
4
5
IC900 (1/2)
CXD9018BR
VP
IC902
74LCX16374MTDX
IC903
74LCX16374MTDX
INCHK_C1
INCHK_Y1
DCN
TX_OUT
VP_CK74
RST_VP
CK74_VP2
CK74_VP3
CK74_DCP
DCP_CLK74M
DA_DATA_Y0-Y9
DA_DATA_C2-C9
DCN_H
C901 0.1uF
C902 0.1uF
+3V-4
CN211

VPR-53 (9/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_9

A B C D E F G H

HDW-250 (J) : S/N 30001 through 30050



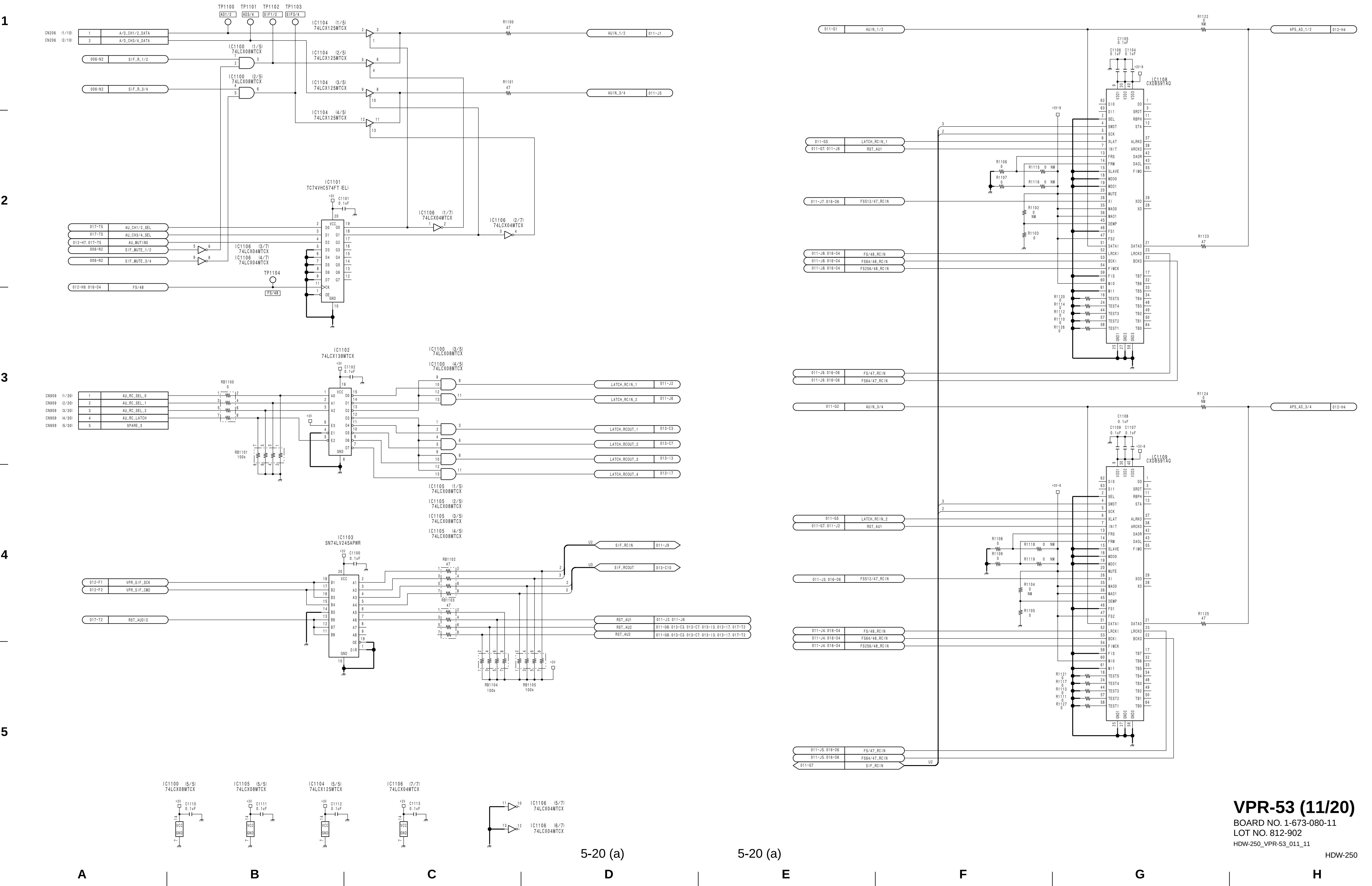
IC1001
SN74CBTLV3245PW-E05
IC1002
SN74CBTLV3245PW-E05
IC1000 (1/6)
74LCX04MTCX
IC900 (2/2)
CXD9018BR
VP
IC1004
TC74VHCT244AFT (EL)
IC1005
MB90091A-120
IC1006
SN74LV245APWR
IC1000 (2/6)
74LCX04MTCX
IC1000 (3/6)
74LCX04MTCX
IC1000 (4/6)
74LCX04MTCX
IC1000 (5/6)
74LCX04MTCX
IC1000 (6/6)
74LCX04MTCX
OUT_FIL_C
OUT_FIL_Y
PROC_DATA_VP
OUT_FIL_H
OUT_FIL_F
H_PLD
FRAME_PLD
CK74_VP1
INCHK_90H_ADV
INCHK_Y1
PAD_ST1_VP
PAD_ST0_VP
PAD_STB_VP
CS_VP
RST_VP
VP_CK74
CG_CMD
CG_SCK
CG_CPS
RST_CG
RED
GREEN
BLUE
INTEN
VOB
DOCK
R1004 NM
R1005 NM
R1006 0
R1007 0
R1000 150
R1001 200
R1002 47
R1003 47
C1000 0.1uF
C1001 0.1uF
C1028 0.1uF
C1029 1uF
C1030 0.1uF
C1031 0.1uF
C1032 0.1uF
+3V-4
+5V-4
+2.4V-4
1
2
3
4
5
A
B
C
D
E
F
G
H

VPR-53 (10/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_10

VPR-53 (11/20)

HDW-250 (J) : S/N 30001 through 30050

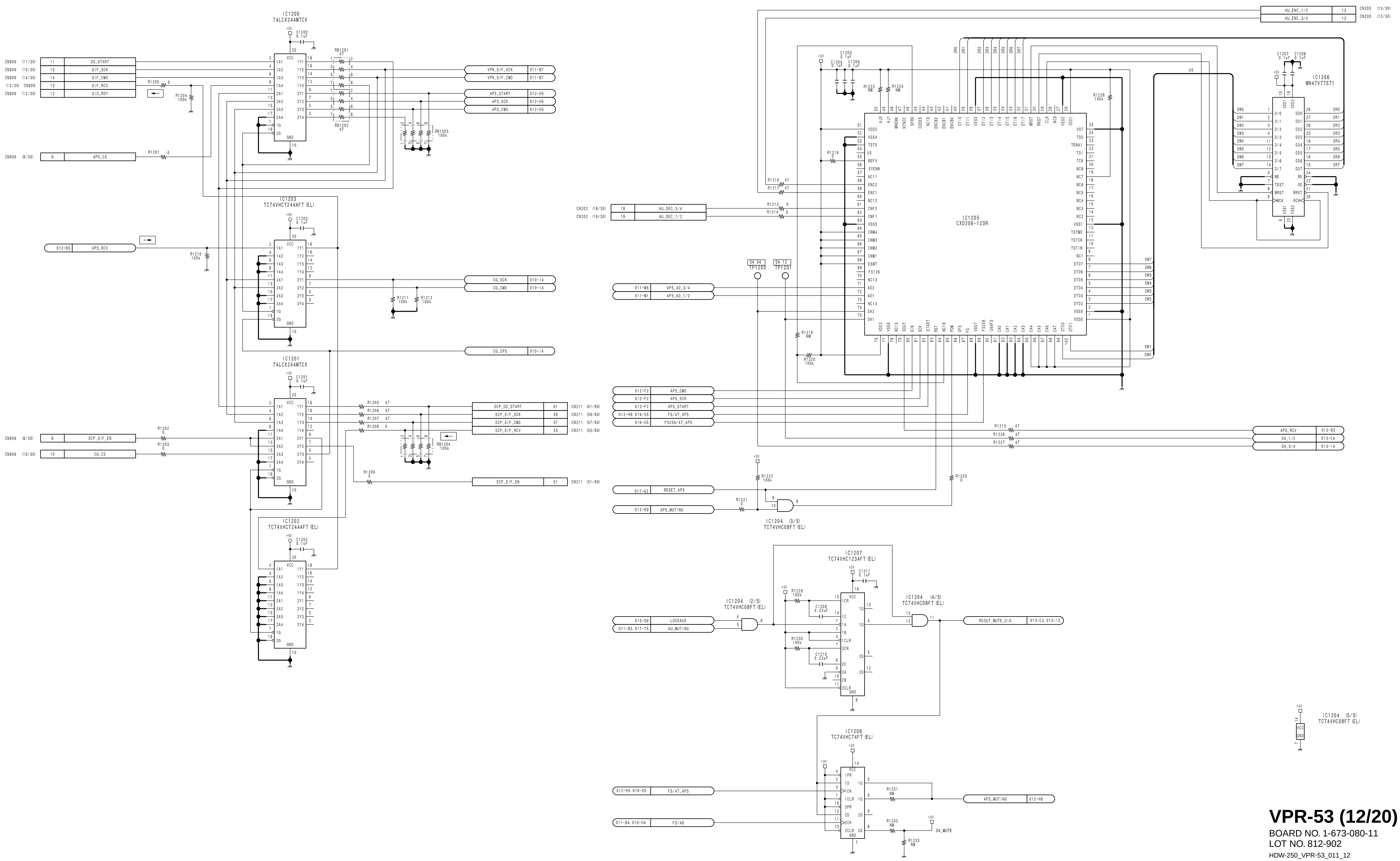

1
2
3
4
5
TP1100
TP1101
TP1102
TP1103
AD1/2
AD3/4
SIF1/2
SIF3/4
IC1104 (1/5) 74LCX125MTCX
IC1104 (2/5) 74LCX125MTCX
IC1104 (3/5) 74LCX125MTCX
IC1104 (4/5) 74LCX125MTCX
IC1100 (1/5) 74LCX08MTCX
IC1100 (2/5) 74LCX08MTCX
CN206 (1/10)
CN206 (2/10)
A/D_CH1/2_DATA
A/D_CH3/4_DATA
SIF_R_1/2
SIF_R_3/4
R1100 47
R1101 47
AUIN_1/2
AUIN_3/4
011-J1
011-J5
IC1101 TC74VHC574FT (EL)
C1101 0.1uF
AU_CH1/2_SEL
AU_CH3/4_SEL
AU_MUTING
SIF_MUTE_1/2
SIF_MUTE_3/4
FS/48
TP1104
IC1106 (1/7) 74LCX04MTCX
IC1106 (2/7) 74LCX04MTCX
IC1106 (3/7) 74LCX04MTCX
IC1106 (4/7) 74LCX04MTCX
IC1102 74LCX138MTCX
C1102 0.1uF
RB1100 0
RB1101 100k
CN909 (1/30)
CN909 (2/30)
CN909 (3/30)
CN909 (4/30)
CN909 (5/30)
AU_RC_SEL_0
AU_RC_SEL_1
AU_RC_SEL_2
AU_RC_LATCH
SPARE_3
IC1100 (3/5) 74LCX08MTCX
IC1100 (4/5) 74LCX08MTCX
IC1105 (1/5) 74LCX08MTCX
IC1105 (2/5) 74LCX08MTCX
IC1105 (3/5) 74LCX08MTCX
IC1105 (4/5) 74LCX08MTCX
LATCH_RCIN_1
LATCH_RCIN_2
LATCH_RCOUT_1
LATCH_RCOUT_2
LATCH_RCOUT_3
LATCH_RCOUT_4
011-J2
011-J6
013-C3
013-C7
013-I3
013-I7
IC1103 SN74LV245APWR
C1100 0.1uF
RB1102 47
RB1103 47
RB1104 100k
RB1105 100k
VPR_SIF_SCK
VPR_SIF_CMD
RST_AUDIO
SIF_RCIN
SIF_RCOUT
RST_AU1
RST_AU2
IC1100 (5/5) 74LCX08MTCX
IC1105 (5/5) 74LCX08MTCX
IC1104 (5/5) 74LCX125MTCX
IC1106 (7/7) 74LCX04MTCX
C1110 0.1uF
C1111 0.1uF
C1112 0.1uF
C1113 0.1uF
IC1106 (5/7) 74LCX04MTCX
IC1106 (6/7) 74LCX04MTCX
IC1108 CXD8591AQ
IC1109 CXD8591AQ
C1104 0.1uF
C1105 0.1uF
C1106 0.1uF
C1107 0.1uF
C1108 0.1uF
C1109 0.1uF
R1122 0 NM
R1123 47
R1124 0 NM
R1125 47
APS_AD_1/2
APS_AD_3/4
012-H4
LATCH_RCIN_1
RST_AU1
FS512/47_RCIN
FS/48_RCIN
FS64/48_RCIN
FS256/48_RCIN
FS/47_RCIN
FS64/47_RCIN
SIF_RCIN
A
B
C
D
E
F
G
H

VPR-53 (11/20)
BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_11

5-20 (a)

http://getMANUAL.com

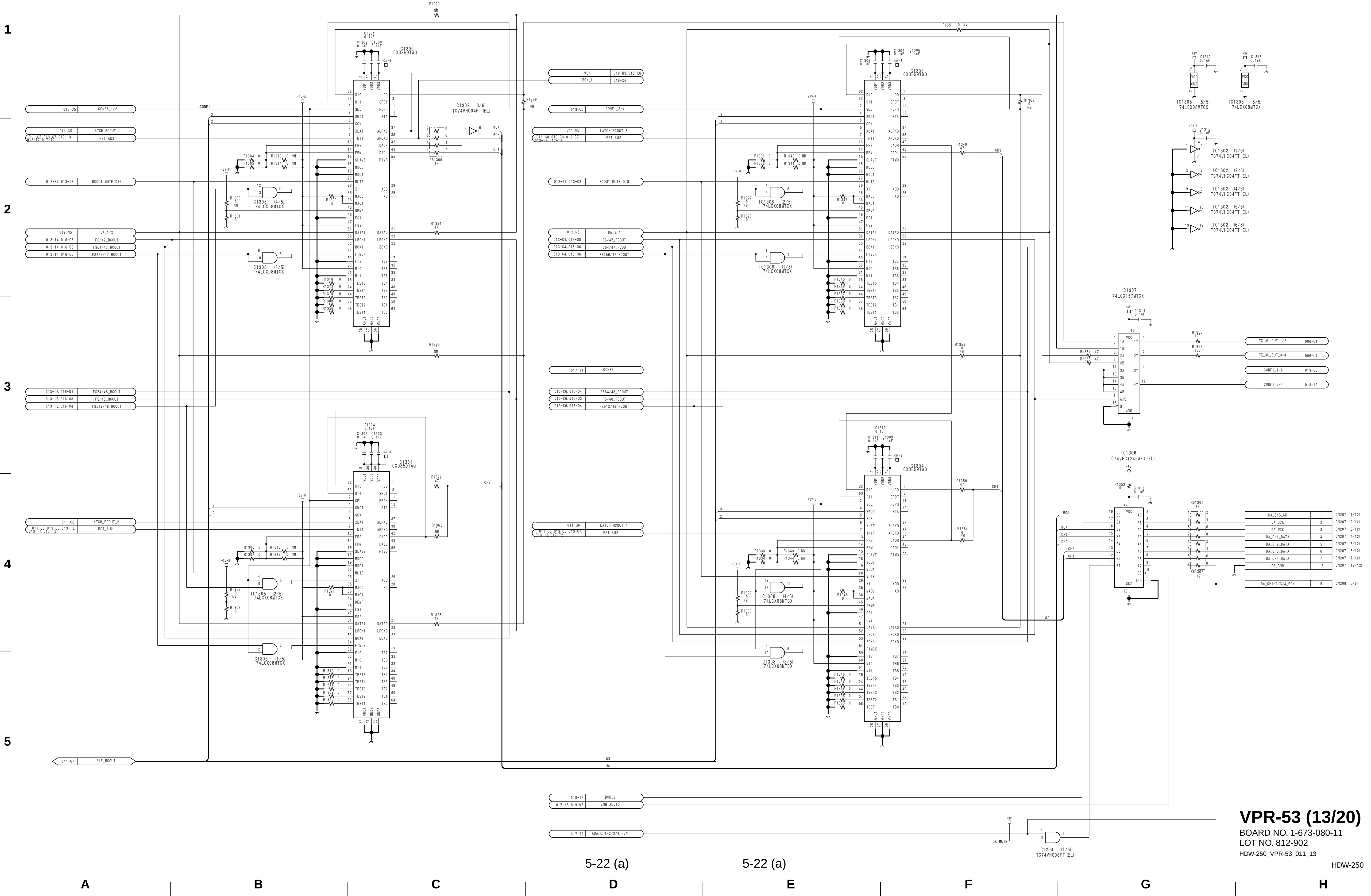
HDW-250 (J) : S/N 30001 through 30050


IC1200
74LCX244MTCX
IC1203
TC74VHCT244AFT (EL)
IC1201
74LCX244MTCX
IC1202
TC74VHCT244AFT (EL)
IC1205
CXD206-123R
IC1206
MN47V77ST1
IC1204 (3/5)
TC74VHC08FT (EL)
IC1204 (2/5)
TC74VHC08FT (EL)
IC1204 (4/5)
TC74VHC08FT (EL)
IC1204 (5/5)
TC74VHC08FT (EL)
IC1207
TC74VHC123AFT (EL)
IC1208
TC74VHC74FT (EL)
CN909 (11/30) 11 DO_START
CN909 (15/30) 15 SIF_SCK
CN909 (14/30) 14 SIF_CMD
(13/30) CN909 13 SIF_RCV
CN909 (12/30) 12 SIO_RDY
CN909 (9/30) 9 APS_CS
CN909 (8/30) 8 DCP_SIF_EN
CN909 (10/30) 10 CG_CS
012-N5 APS_RCV
VPR_SIF_SCK 011-B7
VPR_SIF_CMD 011-B7
APS_START 012-H5
APS_SCK 012-H5
APS_CMD 012-H5
CG_SCK 010-I4
CG_CMD 010-I4
CG_CPS 010-I4
DCP_DO_START 61 CN211 (61/80)
DCP_SIF_SCK 59 CN211 (59/80)
DCP_SIF_CMD 57 CN211 (57/80)
DCP_SIF_RCV 55 CN211 (55/80)
DCP_SIF_EN 51 CN211 (51/80)
CN202 (18/30) 18 AU_DEC_3/4
CN202 (19/30) 19 AU_DEC_1/2
011-M5 APS_AD_3/4
011-M1 APS_AD_1/2
012-F2 APS_CMD
012-F2 APS_SCK
012-F2 APS_START
012-H9, 016-O5 FS/47_APS
016-O5 FS256/47_APS
017-G2 RESET_APS
012-K9 APS_MUTING
AU_ENC_1/2 13 CN205 (13/30)
AU_ENC_3/4 12 CN205 (12/30)
APS_RCV 012-B3
DA_1/2 013-C4
DA_3/4 013-I4
015-G9 LOCKAUD
011-B3, 017-T5 AU_MUTING
RCOUT_MUTE_DIG 013-C3, 013-I3
012-H5, 016-O5 FS/47_APS
011-B4, 016-O4 FS/48
APS_MUTING 012-H6
DA_MUTE
TP1200 DA 3/4
TP1201 DA 1/2
1
2
3
4
5
A
B
C
D
E
F
G
H

VPR-53 (12/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_12

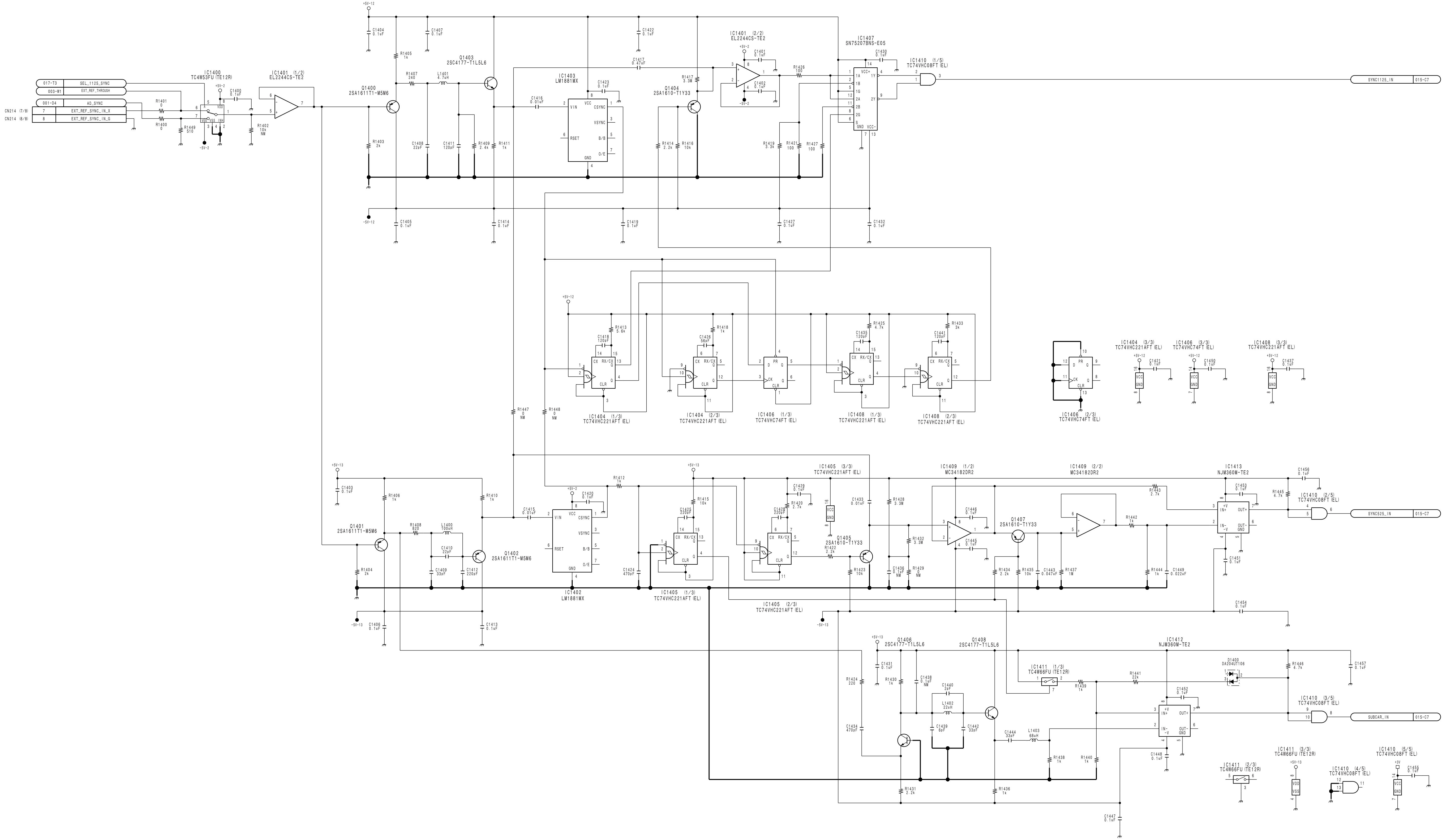
HDW-250 (J) : S/N 30001 through 30050


1
2
3
4
5
A
B
C
D
E
F
G
H
IC1300 CXD8591AQ
IC1301 CXD8591AQ
IC1303 CXD8591AQ
IC1304 CXD8591AQ
IC1302 (3/6) TC74VHC04FT (EL)
IC1302 (1/6) TC74VHC04FT (EL)
IC1302 (2/6) TC74VHC04FT (EL)
IC1302 (4/6) TC74VHC04FT (EL)
IC1302 (5/6) TC74VHC04FT (EL)
IC1302 (6/6) TC74VHC04FT (EL)
IC1305 (1/5) 74LCX08MTCX
IC1305 (2/5) 74LCX08MTCX
IC1305 (3/5) 74LCX08MTCX
IC1305 (4/5) 74LCX08MTCX
IC1305 (5/5) 74LCX08MTCX
IC1308 (1/5) 74LCX08MTCX
IC1308 (2/5) 74LCX08MTCX
IC1308 (3/5) 74LCX08MTCX
IC1308 (4/5) 74LCX08MTCX
IC1308 (5/5) 74LCX08MTCX
IC1307 74LCX157MTCX
IC1306 TC74VHCT245AFT (EL)
IC1204 (1/5) TC74VHC08FT (EL)
013-O5 CONFI_1/2
011-G5 LATCH_RCOUT_1
RST_AU2
012-K7, 013-I3 RCOUT_MUTE_DIG
012-N5 DA_1/2
013-I4, 016-O8 FS/47_RCOUT
013-I4, 016-O6 FS64/47_RCOUT
013-I4, 016-O6 FS256/47_RCOUT
013-I6, 016-O4 FS64/48_RCOUT
013-I6, 016-O3 FS/48_RCOUT
013-I6, 016-O4 FS512/48_RCOUT
011-G6 LATCH_RCOUT_2
011-G7 SIF_RCOUT
MCK 018-R9, 018-X6
BCK_1 018-X6
013-O6 CONFI_3/4
011-G6 LATCH_RCOUT_3
012-K7, 013-C3 RCOUT_MUTE_DIG
012-N5 DA_3/4
013-C4, 016-O8 FS/47_RCOUT
013-C4, 016-O6 FS64/47_RCOUT
013-C4, 016-O6 FS256/47_RCOUT
017-T1 CONFI
013-C6, 016-O4 FS64/48_RCOUT
013-C6, 016-O3 FS/48_RCOUT
013-C6, 016-O4 FS512/48_RCOUT
011-G6 LATCH_RCOUT_4
018-X6 BCK_2
017-K6, 019-M8 ENB_AUDIO
017-T5 ADA_CH1/2/3/4_PON
TX_AU_OUT_1/2 006-U1
TX_AU_OUT_3/4 006-U1
CONFI_1/2 013-C3
CONFI_3/4 013-I3
DA_SYS_CK CN207 (1/12)
DA_BCK CN207 (2/12)
DA_WCK CN207 (3/12)
DA_CH1_DATA CN207 (4/12)
DA_CH2_DATA CN207 (5/12)
DA_CH3_DATA CN207 (6/12)
DA_CH4_DATA CN207 (7/12)
DA_GND CN207 (12/12)
DA_CH1/2/3/4_PON CN208 (5/6)
DA_MUTE
CH1
CH2
CH3
CH4
U3
U6
U7
+3V-8
+3V

VPR-53 (13/20)
BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_13

VPR-53 (14/20)

HDW-250 (J) : S/N 30001 through 30050


SEL_1125_SYNC
EXT_REF_THROUGH
AD_SYNC
EXT_REF_SYNC_IN_X
EXT_REF_SYNC_IN_G
CN214 (7/8)
CN214 (8/8)
IC1400 TC4W53FU(TE12R)
IC1401 (1/2) EL2244CS-TE2
IC1401 (2/2) EL2244CS-TE2
Q1400 2SA1611T1-M5M6
Q1403 2SC4177-T1L5L6
IC1403 LM1881MX
Q1404 2SA1610-T1Y33
IC1407 SN75207BNS-E05
IC1410 (1/5) TC74VHC08FT(EL)
SYNC1125_IN
IC1404 (1/3) TC74VHC221AFT(EL)
IC1404 (2/3) TC74VHC221AFT(EL)
IC1406 (1/3) TC74VHC74FT(EL)
IC1408 (1/3) TC74VHC221AFT(EL)
IC1408 (2/3) TC74VHC221AFT(EL)
IC1406 (2/3) TC74VHC74FT(EL)
IC1404 (3/3) TC74VHC221AFT(EL)
IC1406 (3/3) TC74VHC74FT(EL)
IC1408 (3/3) TC74VHC221AFT(EL)
Q1401 2SA1611T1-M5M6
Q1402 2SA1611T1-M5M6
IC1402 LM1881MX
IC1405 (1/3) TC74VHC221AFT(EL)
IC1405 (2/3) TC74VHC221AFT(EL)
IC1405 (3/3) TC74VHC221AFT(EL)
Q1405 2SA1610-T1Y33
IC1409 (1/2) MC34182DR2
IC1409 (2/2) MC34182DR2
Q1407 2SA1610-T1Y33
IC1413 NJM360M-TE2
IC1410 (2/5) TC74VHC08FT(EL)
SYNC525_IN
Q1406 2SC4177-T1L5L6
Q1408 2SC4177-T1L5L6
IC1411 (1/3) TC4W66FU(TE12R)
IC1412 NJM360M-TE2
D1400 DA204UT106
IC1410 (3/5) TC74VHC08FT(EL)
SUBCAR_IN
IC1411 (2/3) TC4W66FU(TE12R)
IC1411 (3/3) TC4W66FU(TE12R)
IC1410 (4/5) TC74VHC08FT(EL)
IC1410 (5/5) TC74VHC08FT(EL)
+5V-12
-5V-12
+5V-13
-5V-13
1
2
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5

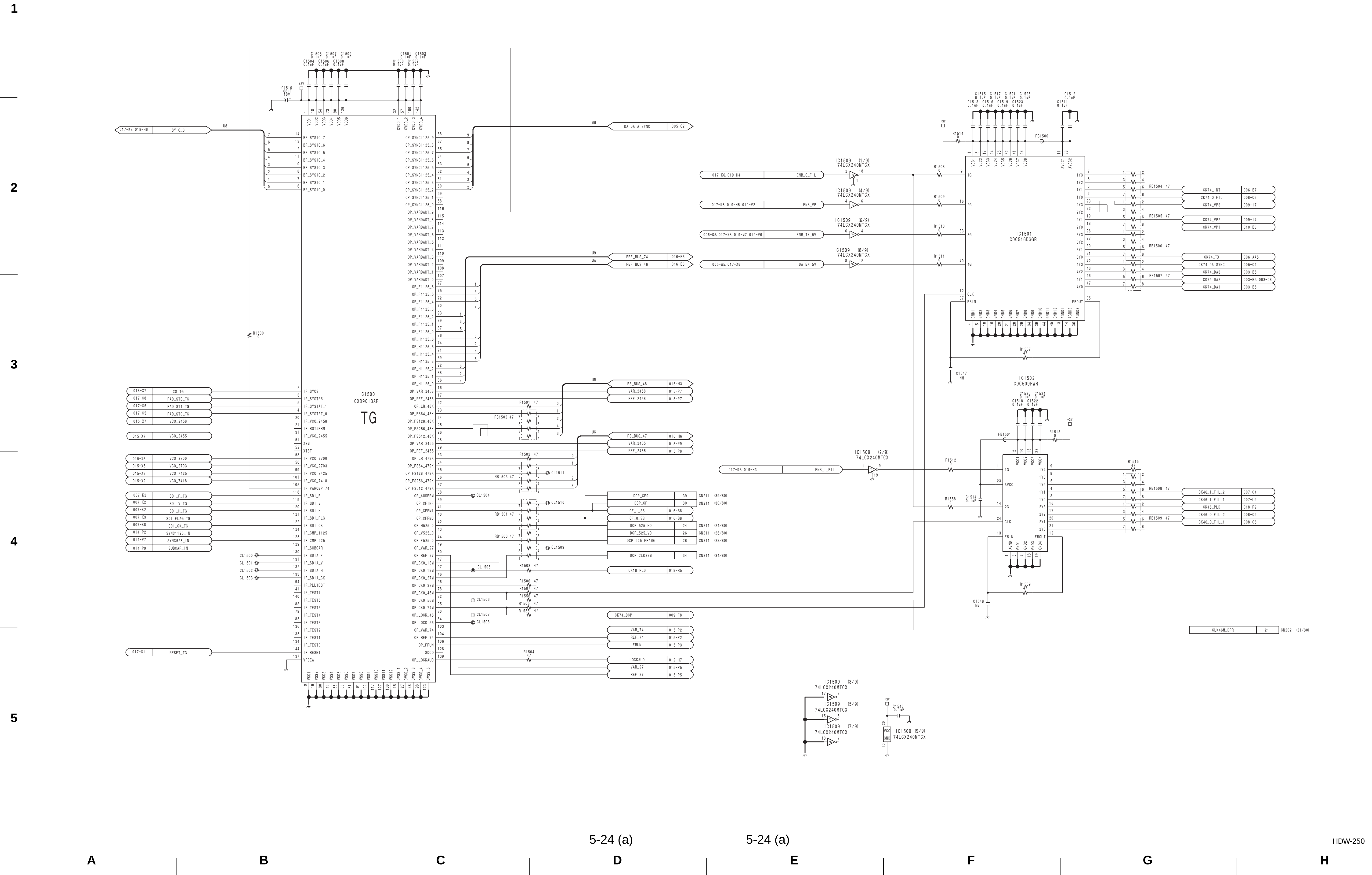
VPR-53 (14/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_14

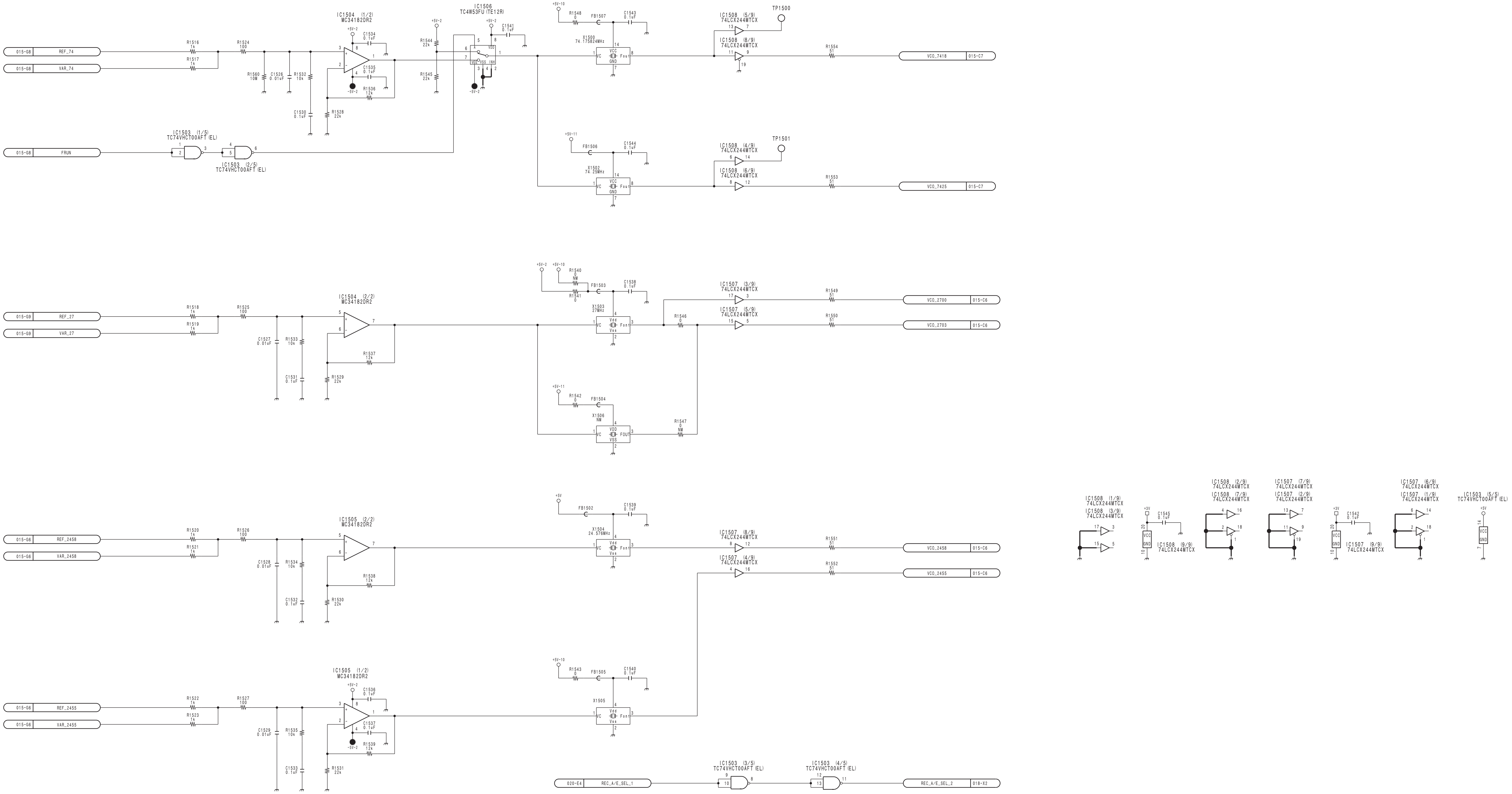
5-23 (a)

VPR-53 (15/20)

HDW-250 (J) : S/N 30001 through 30050


1
2
3
4
5
IC1500
CXD9013AR
TG
IC1501
CDC516DGGR
IC1502
CDC509PWR
IC1509 (1/9) 74LCX240MTCX
IC1509 (2/9) 74LCX240MTCX
IC1509 (3/9) 74LCX240MTCX
IC1509 (4/9) 74LCX240MTCX
IC1509 (5/9) 74LCX240MTCX
IC1509 (6/9) 74LCX240MTCX
IC1509 (7/9) 74LCX240MTCX
IC1509 (8/9) 74LCX240MTCX
IC1509 (9/9) 74LCX240MTCX
SYIO_3
DA_DATA_SYNC
REF_BUS_74
REF_BUS_46
FS_BUS_48
VAR_2458
REF_2458
FS_BUS_47
VAR_2455
REF_2455
CS_TG
PAD_STB_TG
PAD_ST1_TG
PAD_ST0_TG
VCO_2458
VCO_2455
VCO_2700
VCO_2703
VCO_7425
VCO_7418
SDI_F_TG
SDI_V_TG
SDI_H_TG
SDI_FLAG_TG
SDI_CK_TG
SYNC1125_IN
SYNC525_IN
SUBCAR_IN
RESET_TG
DCP_CF0
DCP_CF
CF_1_SS
CF_0_SS
DCP_525_HD
DCP_525_VD
DCP_525_FRAME
DCP_CLK27M
CK18_PLD
CK74_DCP
VAR_74
REF_74
FRUN
LOCKAUD
VAR_27
REF_27
ENB_O_FIL
ENB_VP
ENB_TX_5V
DA_EN_5V
ENB_I_FIL
CK74_INT
CK74_O_FIL
CK74_VP3
CK74_VP2
CK74_VP1
CK74_TX
CK74_DA_SYNC
CK74_DA3
CK74_DA2
CK74_DA1
CK46_I_FIL_2
CK46_I_FIL_1
CK46_PLD
CK46_O_FIL_2
CK46_O_FIL_1
CLK46M_DPR
CN202 (21/30)
CN211
RB1500 47
RB1501 47
RB1502 47
RB1503 47
RB1504 47
RB1505 47
RB1506 47
RB1507 47
RB1508 47
RB1509 47
R1500 0
R1504 47
FB1500
FB1501
C1547 NM
C1548 NM
C1514 0.1uF
C1546 0.1uF
+3V
A
B
C
D
E
F
G
H

5-24 (a)


015-G8 REF_74
015-G8 VAR_74
015-G8 FRUN
R1516 1k
R1517 1k
R1524 100
R1560 10M
C1526 0.01uF
R1532 10k
C1530 0.1uF
R1528 22k
IC1504 (1/2) MC34182DR2
+5V-2
C1534 0.1uF
C1535 0.1uF
-5V-2
R1536 12k
IC1503 (1/5) TC74VHCT00AFT (EL)
IC1503 (2/5) TC74VHCT00AFT (EL)
R1544 22k
R1545 22k
IC1506 TC4W53FU (TE12R)
A VDD VEE VSS INH
C1541 0.1uF
+5V-10
R1548 0
FB1507
C1543 0.1uF
X1500 74.175824MHz
VCC GND VC Fout
IC1508 (5/9) 74LCX244MTCX
TP1500
IC1508 (8/9) 74LCX244MTCX
R1554 51
VCO_7418 015-C7
+5V-11
FB1506
C1544 0.1uF
X1502 74.25MHz
IC1508 (4/9) 74LCX244MTCX
TP1501
IC1508 (6/9) 74LCX244MTCX
R1553 51
VCO_7425 015-C7
015-G9 REF_27
015-G9 VAR_27
R1518 1k
R1519 1k
R1525 100
C1527 0.01uF
R1533 10k
C1531 0.1uF
R1529 22k
IC1504 (2/2) MC34182DR2
R1537 12k
R1540 0 NM
R1541 0
FB1503
C1538 0.1uF
X1503 27MHz
Vdd Vss Font
IC1507 (3/9) 74LCX244MTCX
R1549 51
VCO_2700 015-C6
R1546 0
IC1507 (5/9) 74LCX244MTCX
R1550 51
VCO_2703 015-C6
R1542 0
FB1504
X1506 NM
VDD VSS FOUT
R1547 0 NM
015-G6 REF_2458
015-G6 VAR_2458
R1520 1k
R1521 1k
R1526 100
C1528 0.01uF
R1534 10k
C1532 0.1uF
R1530 22k
IC1505 (2/2) MC34182DR2
R1538 12k
+5V
FB1502
C1539 0.1uF
X1504 24.576MHz
IC1507 (8/9) 74LCX244MTCX
R1551 51
VCO_2458 015-C6
IC1507 (4/9) 74LCX244MTCX
R1552 51
VCO_2455 015-C6
015-G6 REF_2455
015-G6 VAR_2455
R1522 1k
R1523 1k
R1527 100
C1529 0.01uF
R1535 10k
C1533 0.1uF
R1531 22k
IC1505 (1/2) MC34182DR2
C1536 0.1uF
C1537 0.1uF
R1539 12k
R1543 0
FB1505
C1540 0.1uF
X1505
020-E4 REC_A/E_SEL_1
IC1503 (3/5) TC74VHCT00AFT (EL)
IC1503 (4/5) TC74VHCT00AFT (EL)
REC_A/E_SEL_2 018-X2
IC1508 (1/9) 74LCX244MTCX
IC1508 (3/9) 74LCX244MTCX
+3V
C1545 0.1uF
IC1508 (9/9) 74LCX244MTCX
IC1508 (2/9) 74LCX244MTCX
IC1508 (7/9) 74LCX244MTCX
IC1507 (7/9) 74LCX244MTCX
IC1507 (2/9) 74LCX244MTCX
C1542 0.1uF
IC1507 (9/9) 74LCX244MTCX
IC1507 (6/9) 74LCX244MTCX
IC1507 (1/9) 74LCX244MTCX
IC1503 (5/5) TC74VHCT00AFT (EL)
1
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I
J
K
L
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N
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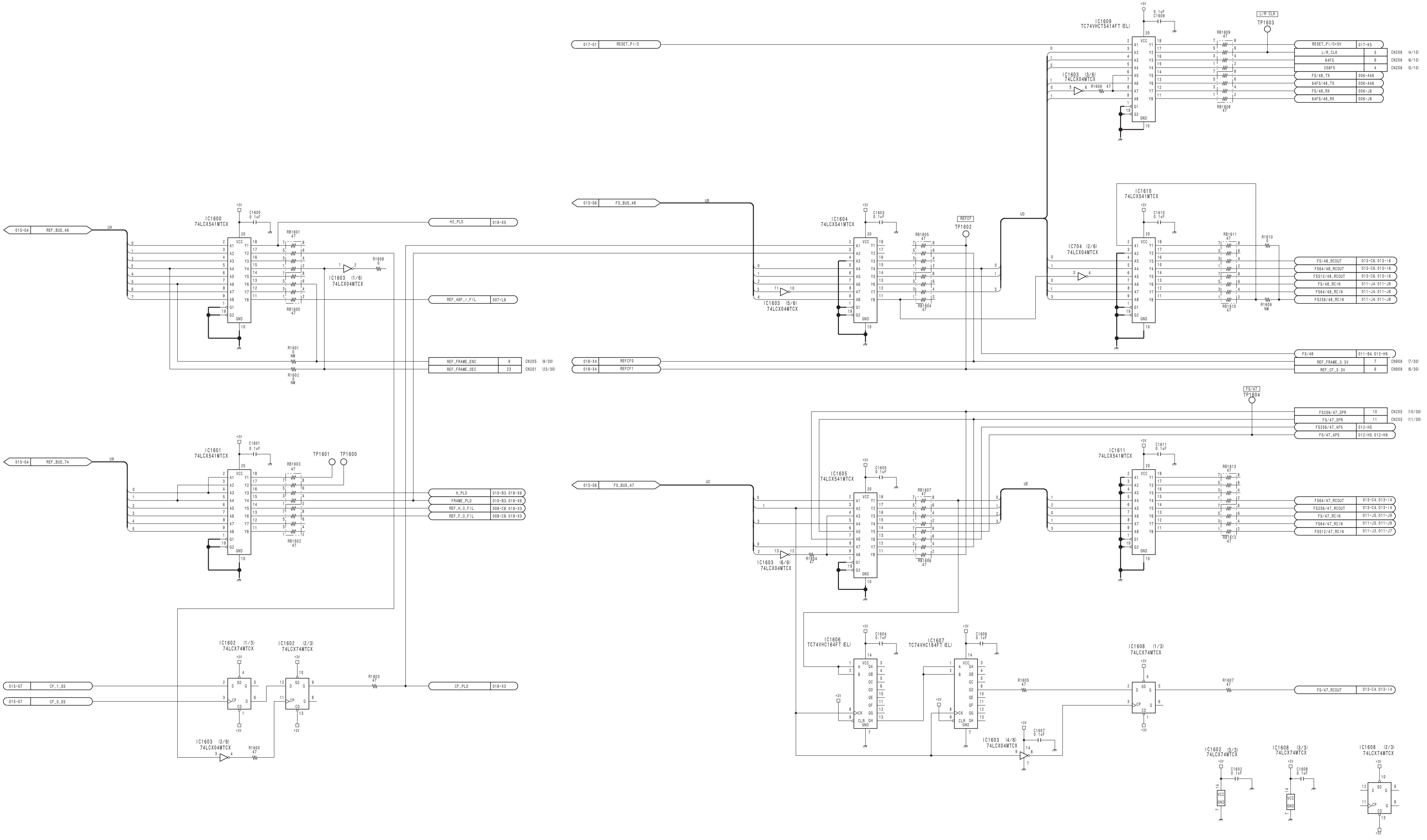
P

VPR-53 (15/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_15

gM

HDW-250 (J) : S/N 30001 through 30050


015-G4 REF_BUS_46
UA
IC1600
74LCX541MTCX
+3V
C1600
0.1uF
RB1601
47
RB1600
47
IC1603 (1/6)
74LCX04MTCX
R1608
0
H2_PLD 018-X5
REF_46F_I_FIL 007-L8
R1601
0
NM
R1602
0
NM
REF_FRAME_ENC 9 CN205 (9/30)
REF_FRAME_DEC 23 CN201 (23/30)
015-G4 REF_BUS_74
U9
IC1601
74LCX541MTCX
C1601
0.1uF
RB1603
47
RB1602
47
TP1601
TP1600
H_PLD 010-B3, 018-X6
FRAME_PLD 010-B3, 018-X6
REF_H_O_FIL 008-C8, 018-X3
REF_F_O_FIL 008-C8, 018-X3
IC1602 (1/3)
74LCX74MTCX
IC1602 (2/3)
74LCX74MTCX
015-G7 CF_1_SS
015-G7 CF_0_SS
R1603
47
CF_PLD 018-X3
IC1603 (2/6)
74LCX04MTCX
R1600
47
017-G1 RESET_PI/O
015-G6 FS_BUS_48
UB
IC1604
74LCX541MTCX
C1603
0.1uF
IC1603 (5/6)
74LCX04MTCX
RB1605
47
RB1604
47
REFCF
TP1602
018-X4 REFCF0
018-X4 REFCF1
UD
IC1609
TC74VHCT541AFT (EL)
+5V
C1609
0.1uF
IC1603 (3/6)
74LCX04MTCX
R1606 47
RB1609
47
RB1608
47
L/R CLK
TP1603
RESET_PI/O+5V 017-K5
L/R_CLK 5 CN206 (4/10)
64FS 6 CN206 (6/10)
256FS 4 CN206 (5/10)
FS/48_TX 006-AA6
64FS/48_TX 006-AA6
FS/48_RX 006-J8
64FS/48_RX 006-J8
IC1610
74LCX541MTCX
C1610
0.1uF
IC704 (2/6)
74LCX04MTCX
RB1611
47
RB1610
47
R1610
0
R1609
NM
FS/48_RCOUT 013-C6, 013-I6
FS64/48_RCOUT 013-C6, 013-I6
FS512/48_RCOUT 013-C6, 013-I6
FS/48_RCIN 011-J4, 011-J8
FS64/48_RCIN 011-J4, 011-J8
FS256/48_RCIN 011-J4, 011-J8
FS/48 011-B4, 012-H9
REF_FRAME_3.3V 7 CN909 (7/30)
REF_CF_3.3V 6 CN909 (6/30)
FS/47
TP1604
FS256/47_DPR 10 CN205 (10/30)
FS/47_DPR 11 CN205 (11/30)
FS256/47_AP5 012-H5
FS/47_AP5 012-H5, 012-H9
015-G6 FS_BUS_47
UC
IC1605
74LCX541MTCX
C1605
0.1uF
IC1603 (6/6)
74LCX04MTCX
R1604
47
RB1607
47
RB1606
47
UE
IC1611
74LCX541MTCX
C1611
0.1uF
RB1613
47
RB1612
47
FS64/47_RCOUT 013-C4, 013-I4
FS256/47_RCOUT 013-C4, 013-I4
FS/47_RCIN 011-J5, 011-J9
FS64/47_RCIN 011-J5, 011-J9
FS512/47_RCIN 011-J3, 011-J7
IC1606
TC74VHC164FT (EL)
C1604
0.1uF
IC1607
TC74VHC164FT (EL)
C1606
0.1uF
IC1603 (4/6)
74LCX04MTCX
C1607
0.1uF
R1605
47
IC1608 (1/3)
74LCX74MTCX
R1607
47
FS/47_RCOUT 013-C4, 013-I4
IC1602 (3/3)
74LCX74MTCX
C1602
0.1uF
IC1608 (3/3)
74LCX74MTCX
C1608
0.1uF
IC1608 (2/3)
74LCX74MTCX
1
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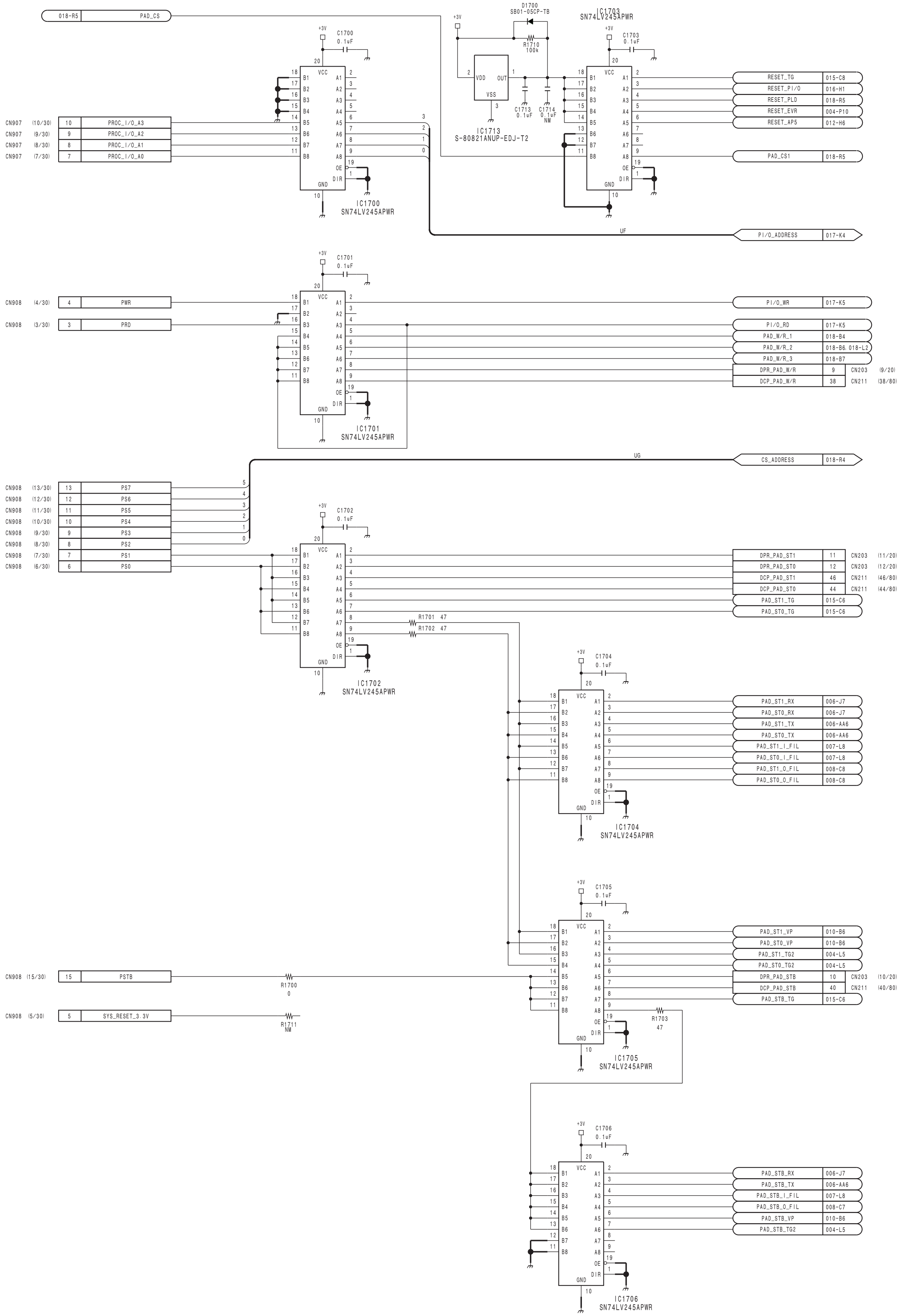
H

VPR-53 (16/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_16

VPR-53 (17/20)

HDW-250 (J) : S/N 30001 through 30050


018-R5 PAD_CS
CN907 (10/30) 10 PROC_I/O_A3
CN907 (9/30) 9 PROC_I/O_A2
CN907 (8/30) 8 PROC_I/O_A1
CN907 (7/30) 7 PROC_I/O_A0
+3V
C1700 0.1uF
IC1700 SN74LV245APWR
D1700 SB01-05CP-TB
R1710 100k
IC1713 S-80821ANUP-EDJ-T2
C1713 0.1uF
C1714 0.1uF NM
IC1703 SN74LV245APWR
C1703 0.1uF
RESET_TG 015-C8
RESET_PI/O 016-H1
RESET_PLD 018-R5
RESET_EVR 004-P10
RESET_AP5 012-H6
PAD_CS1 018-R5
UF
PI/O_ADDRESS 017-K4
CN908 (4/30) 4 PWR
CN908 (3/30) 3 PRD
C1701 0.1uF
IC1701 SN74LV245APWR
PI/O_WR 017-K5
PI/O_RD 017-K5
PAD_W/R_1 018-B4
PAD_W/R_2 018-B6, 018-L2
PAD_W/R_3 018-B7
DPR_PAD_W/R 9 CN203 (9/20)
DCP_PAD_W/R 38 CN211 (38/80)
UG
CS_ADDRESS 018-R4
CN908 (13/30) 13 PS7
CN908 (12/30) 12 PS6
CN908 (11/30) 11 PS5
CN908 (10/30) 10 PS4
CN908 (9/30) 9 PS3
CN908 (8/30) 8 PS2
CN908 (7/30) 7 PS1
CN908 (6/30) 6 PS0
C1702 0.1uF
IC1702 SN74LV245APWR
R1701 47
R1702 47
DPR_PAD_ST1 11 CN203 (11/20)
DPR_PAD_ST0 12 CN203 (12/20)
DCP_PAD_ST1 46 CN211 (46/80)
DCP_PAD_ST0 44 CN211 (44/80)
PAD_ST1_TG 015-C6
PAD_ST0_TG 015-C6
C1704 0.1uF
IC1704 SN74LV245APWR
PAD_ST1_RX 006-J7
PAD_ST0_RX 006-J7
PAD_ST1_TX 006-AA6
PAD_ST0_TX 006-AA6
PAD_ST1_I_FIL 007-L8
PAD_ST0_I_FIL 007-L8
PAD_ST1_O_FIL 008-C8
PAD_ST0_O_FIL 008-C8
C1705 0.1uF
IC1705 SN74LV245APWR
CN908 (15/30) 15 PSTB
R1700 0
CN908 (5/30) 5 SYS_RESET_3.3V
R1711 NM
R1703 47
PAD_ST1_VP 010-B6
PAD_ST0_VP 010-B6
PAD_ST1_TG2 004-L5
PAD_ST0_TG2 004-L5
DPR_PAD_STB 10 CN203 (10/20)
DCP_PAD_STB 40 CN211 (40/80)
PAD_STB_TG 015-C6
C1706 0.1uF
IC1706 SN74LV245APWR
PAD_STB_RX 006-J7
PAD_STB_TX 006-AA6
PAD_STB_I_FIL 007-L8
PAD_STB_O_FIL 008-C7
PAD_STB_VP 010-B6
PAD_STB_TG2 004-L5
VCC
GND
OE
DIR
VDD
OUT
VSS

1
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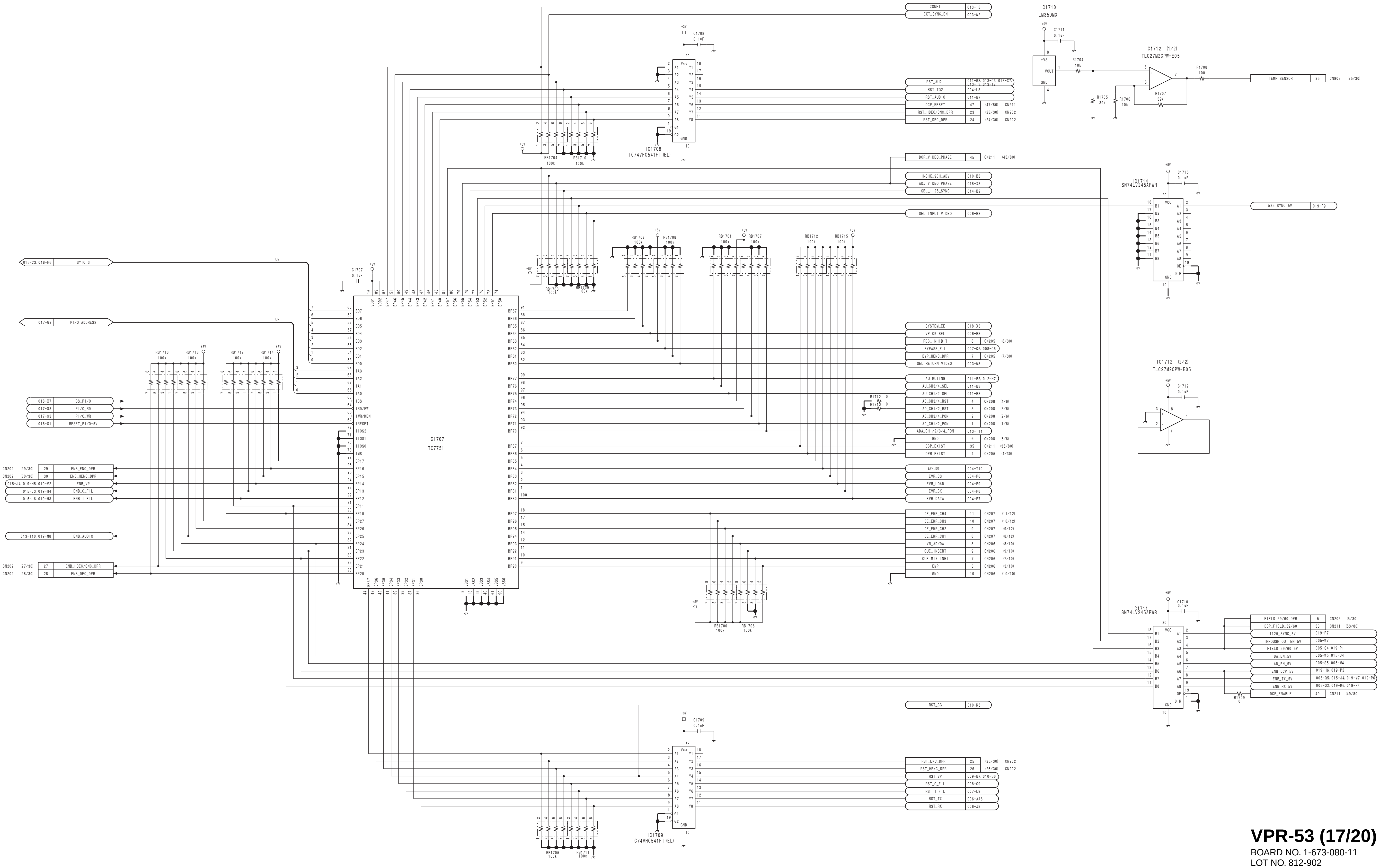
5

5-28 (a)

A B C D E F G H


IC1707
TE7751
IC1708
TC74VHC541FT (EL)
IC1709
TC74VHC541FT (EL)
IC1710
LM35DMX
IC1712 (1/2)
TLC27M2CPW-E05
IC1712 (2/2)
TLC27M2CPW-E05
IC1714
SN74LV245APWR
IC1711
SN74LV245APWR
CONFI
EXT_SYNC_EN
RST_AU2
RST_TG2
RST_AUDIO
DCP_RESET
RST_HDEC/CNC_DPR
RST_DEC_DPR
TEMP_SENSOR
CN908
DCP_VIDEO_PHASE
INCHK_90H_ADV
ADJ_VIDEO_PHASE
SEL_1125_SYNC
SEL_INPUT_VIDEO
525_SYNC_5V
SYIO_3
PI/O_ADDRESS
CS_PI/O
PI/O_RD
PI/O_WR
RESET_PI/O+5V
ENB_ENC_DPR
ENB_HENC_DPR
ENB_VP
ENB_O_FIL
ENB_I_FIL
ENB_AUDIO
ENB_HDEC/CNC_DPR
ENB_DEC_DPR
SYSTEM_EE
VP_CK_SEL
REC_INHIBIT
BYPASS_FIL
BYP_HENC_DPR
SEL_RETURN_VIDEO
AU_MUTING
AU_CH3/4_SEL
AU_CH1/2_SEL
AD_CH3/4_RST
AD_CH1/2_RST
AD_CH3/4_PON
AD_CH1/2_PON
ADA_CH1/2/3/4_PON
GND
DCP_EXIST
DPR_EXIST
EVR_DO
EVR_CS
EVR_LOAD
EVR_CK
EVR_DATA
DE_EMP_CH4
DE_EMP_CH3
DE_EMP_CH2
DE_EMP_CH1
VR_AD/DA
CUE_INSERT
CUE_MIX_INHI
EMP
FIELD_59/60_DPR
DCP_FIELD_59/60
1125_SYNC_5V
THROUGH_OUT_EN_5V
FIELD_59/60_5V
DA_EN_5V
AD_EN_5V
ENB_DCP_5V
ENB_TX_5V
ENB_RX_5V
DCP_ENABLE
RST_CG
RST_ENC_DPR
RST_HENC_DPR
RST_VP
RST_O_FIL
RST_I_FIL
RST_TX
RST_RX
RB1700 100k
RB1701 100k
RB1702 100k
RB1703 100k
RB1704 100k
RB1705 100k
RB1706 100k
RB1707 100k
RB1708 100k
RB1709 100k
RB1710 100k
RB1711 100k
RB1712 100k
RB1713 100k
RB1714 100k
RB1715 100k
RB1716 100k
RB1717 100k
C1707 0.1uF
C1708 0.1uF
C1709 0.1uF
C1710 0.1uF
C1711 0.1uF
C1712 0.1uF
C1715 0.1uF
R1704 10k
R1705 39k
R1706 10k
R1707 39k
R1708 100
R1709 0
R1712 0
R1713 0
CN202
CN205
CN206
CN207
CN208
CN211
+5V

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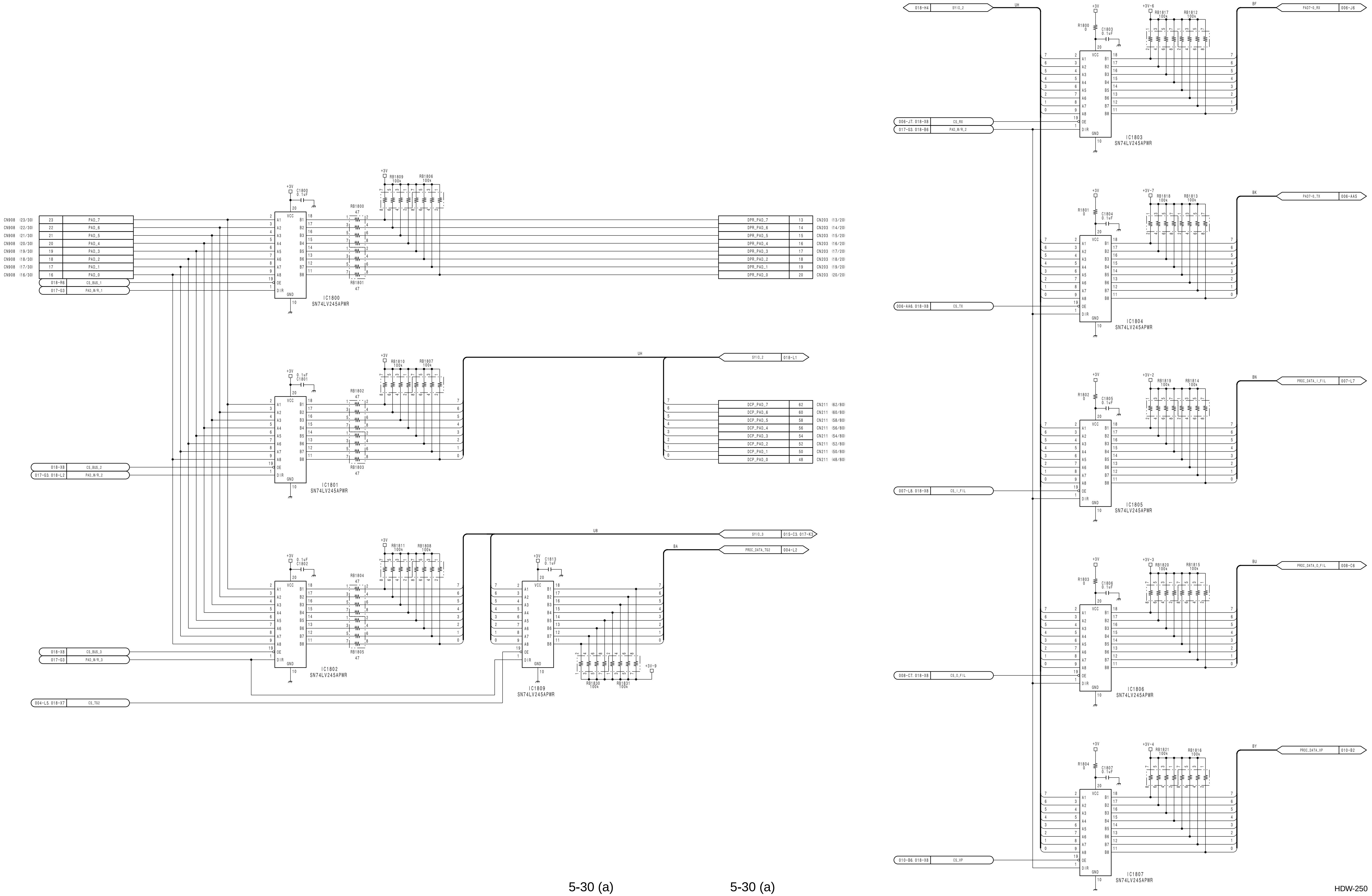
VPR-53 (17/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_17

I J K L M N O P

VPR-53 (18/20)

HDW-250 (J) : S/N 30001 through 30050


1
2
3
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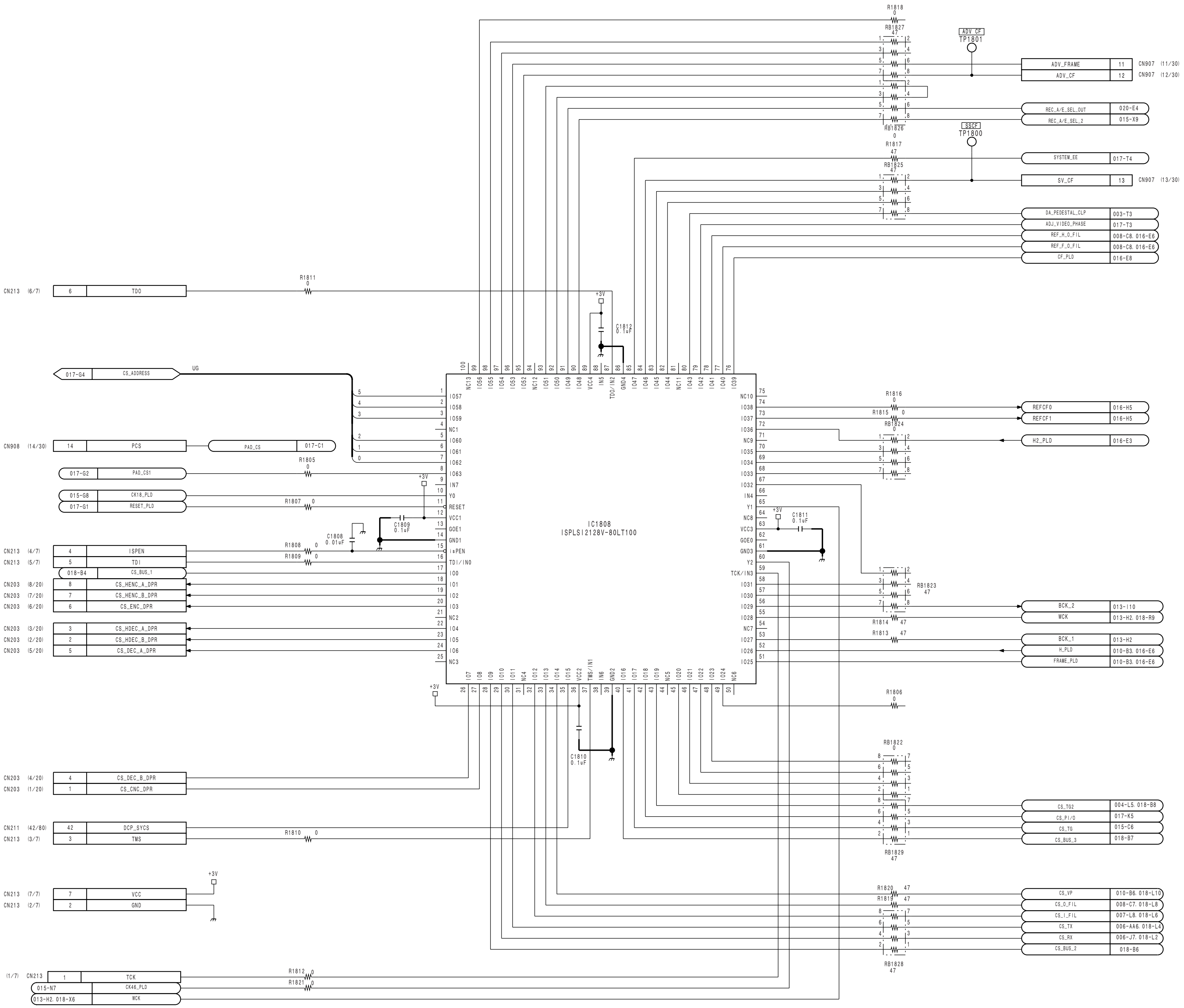
5
IC1800
SN74LV245APWR
IC1801
SN74LV245APWR
IC1802
SN74LV245APWR
IC1809
SN74LV245APWR
IC1803
SN74LV245APWR
IC1804
SN74LV245APWR
IC1805
SN74LV245APWR
IC1806
SN74LV245APWR
IC1807
SN74LV245APWR
CN908
CN203
CN211
PAD_7
PAD_6
PAD_5
PAD_4
PAD_3
PAD_2
PAD_1
PAD_0
DPR_PAD_7
DPR_PAD_0
DCP_PAD_7
DCP_PAD_0
CS_BUS_1
PAD_W/R_1
CS_BUS_2
PAD_W/R_2
CS_BUS_3
PAD_W/R_3
CS_TG2
SYIO_2
SYIO_3
PROC_DATA_TG2
CS_RX
CS_TX
CS_I_FIL
CS_O_FIL
CS_VP
PA37-D_RX
PA37-D_TX
PROC_DATA_I_FIL
PROC_DATA_O_FIL
PROC_DATA_VP
+3V
C1800 0.1uF
RB1800 47
RB1801 47
RB1809 100k
RB1806 100k
UH
U8
BA
BF
BK
BN
BU
BY

5-30 (a)

A B C D E F G H

http://getMANUAL.com

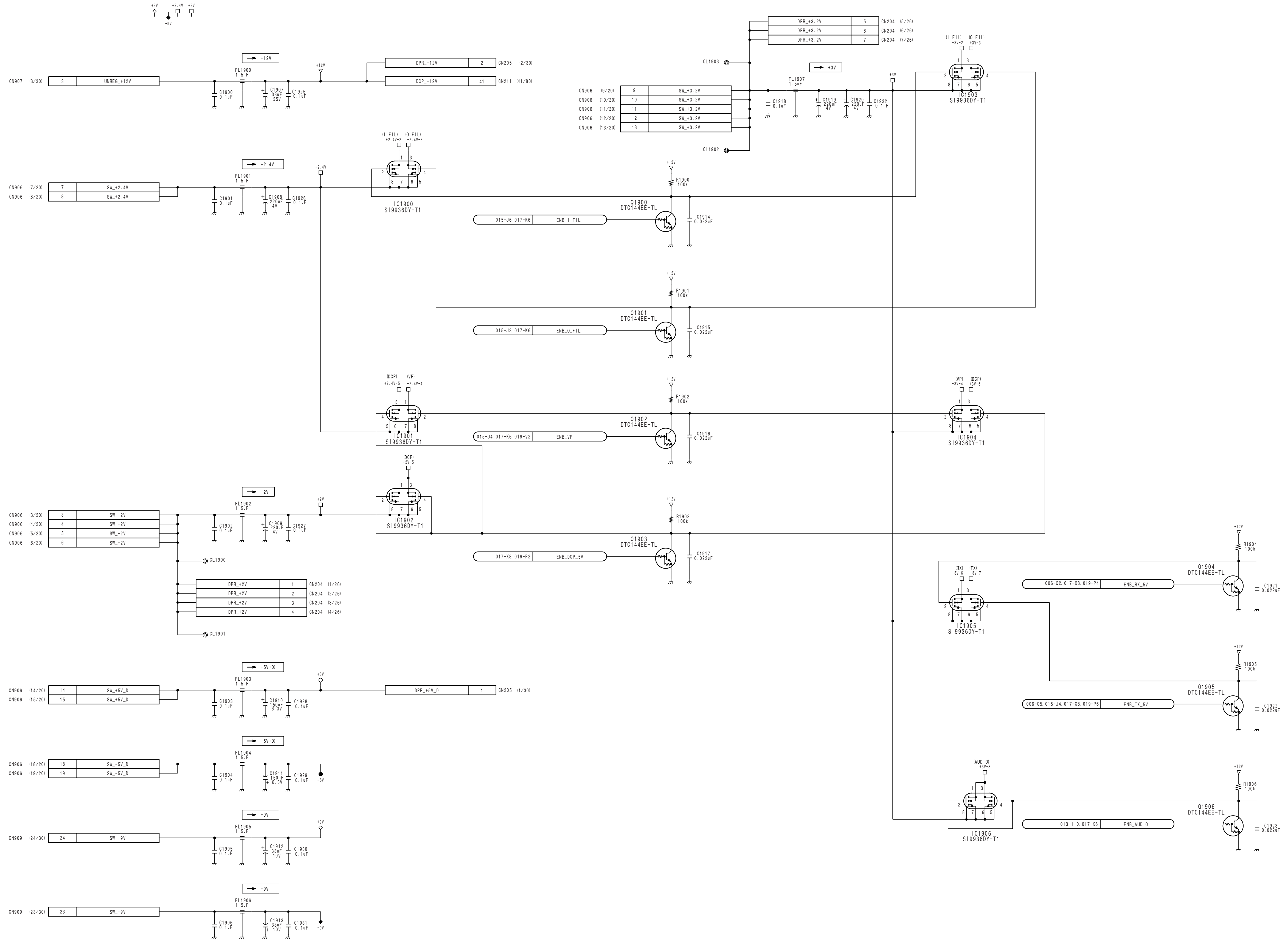

IC1808
ISPLSI2128V-80LT100
R1818 0
RB1827 47
ADV CF
TP1801
ADV_FRAME 11 CN907 (11/30)
ADV_CF 12 CN907 (12/30)
REC_A/E_SEL_OUT 020-E4
REC_A/E_SEL_2 015-X9
RB1826 0
SSCF
TP1800
R1817 47
SYSTEM_EE 017-T4
RB1825 47
SV_CF 13 CN907 (13/30)
DA_PEDESTAL_CLP 003-T3
ADJ_VIDEO_PHASE 017-T3
REF_H_O_FIL 008-C8, 016-E6
REF_F_O_FIL 008-C8, 016-E6
CF_PLD 016-E8
CN213 (6/7) 6 TDO
R1811 0
+3V
C1812 0.1uF
017-G4 CS_ADDRESS
UG
CN908 (14/30) 14 PCS
PAD_CS 017-C1
R1805 0
017-G2 PAD_CS1
015-G8 CK18_PLD
017-G1 RESET_PLD
R1807 0
C1809 0.1uF
C1808 0.01uF
R1808 0
R1809 0
CN213 (4/7) 4 ISPEN
CN213 (5/7) 5 TDI
018-B4 CS_BUS_1
CN203 (8/20) 8 CS_HENC_A_DPR
CN203 (7/20) 7 CS_HENC_B_DPR
CN203 (6/20) 6 CS_ENC_DPR
CN203 (3/20) 3 CS_HDEC_A_DPR
CN203 (2/20) 2 CS_HDEC_B_DPR
CN203 (5/20) 5 CS_DEC_A_DPR
R1816 0
R1815 0
RB1824 0
REFCF0 016-H5
REFCF1 016-H5
H2_PLD 016-E3
C1811 0.1uF
RB1823 47
BCK_2 013-I10
WCK 013-H2, 018-R9
R1814 47
R1813 47
BCK_1 013-H2
H_PLD 010-B3, 016-E6
FRAME_PLD 010-B3, 016-E6
R1806 0
C1810 0.1uF
RB1822 0
CS_TG2 004-L5, 018-B8
CS_PI/O 017-K5
CS_TG 015-C6
CS_BUS_3 018-B7
RB1829 47
R1820 47
R1819 47
CS_VP 010-B6, 018-L10
CS_O_FIL 008-C7, 018-L8
CS_I_FIL 007-L8, 018-L6
CS_TX 006-AA6, 018-L4
CS_RX 006-J7, 018-L2
CS_BUS_2 018-B6
RB1828 47
CN203 (4/20) 4 CS_DEC_B_DPR
CN203 (1/20) 1 CS_CNC_DPR
CN211 (42/80) 42 DCP_SYCS
CN213 (3/7) 3 TMS
R1810 0
CN213 (7/7) 7 VCC
CN213 (2/7) 2 GND
(1/7) CN213 1 TCK
015-N7 CK46_PLD
013-H2, 018-X6 WCK
R1812 0
R1821 0

VPR-53 (18/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_18

VPR-53 (19/20)

HDW-250 (J) : S/N 30001 through 30050


+9V
+2.4V
+2V
-9V
+12V
FL1900
1.5uF
CN907 (3/30)
3
UNREG_+12V
C1900
0.1uF
C1907
33uF
25V
C1925
0.1uF
DPR_+12V
2
CN205 (2/30)
DCP_+12V
41
CN211 (41/80)
+2.4V
FL1901
1.5uF
CN906 (7/20)
7
SW_+2.4V
CN906 (8/20)
8
SW_+2.4V
C1901
0.1uF
C1908
220uF
4V
C1926
0.1uF
(I FIL)
(O FIL)
+2.4V-2
+2.4V-3
IC1900
SI9936DY-T1
DPR_+3.2V
5
CN204 (5/26)
DPR_+3.2V
6
CN204 (6/26)
DPR_+3.2V
7
CN204 (7/26)
CL1903
+3V
FL1907
1.5uF
CN906 (9/20)
9
SW_+3.2V
CN906 (10/20)
10
SW_+3.2V
CN906 (11/20)
11
SW_+3.2V
CN906 (12/20)
12
SW_+3.2V
CN906 (13/20)
13
SW_+3.2V
C1918
0.1uF
C1919
220uF
4V
C1920
220uF
4V
C1932
0.1uF
CL1902
(I FIL)
(O FIL)
+3V-2
+3V-3
IC1903
SI9936DY-T1
+12V
R1900
100k
Q1900
DTC144EE-TL
015-J6, 017-K6
ENB_I_FIL
C1914
0.022uF
R1901
100k
Q1901
DTC144EE-TL
015-J3, 017-K6
ENB_O_FIL
C1915
0.022uF
(DCP)
(VP)
+2.4V-5
+2.4V-4
IC1901
SI9936DY-T1
R1902
100k
Q1902
DTC144EE-TL
015-J4, 017-K6, 019-V2
ENB_VP
C1916
0.022uF
(VP)
(DCP)
+3V-4
+3V-5
IC1904
SI9936DY-T1
(DCP)
+2V-5
IC1902
SI9936DY-T1
+2V
FL1902
1.5uF
CN906 (3/20)
3
SW_+2V
CN906 (4/20)
4
SW_+2V
CN906 (5/20)
5
SW_+2V
CN906 (6/20)
6
SW_+2V
C1902
0.1uF
C1909
220uF
4V
C1927
0.1uF
R1903
100k
Q1903
DTC144EE-TL
017-X8, 019-P2
ENB_DCP_5V
C1917
0.022uF
CL1900
DPR_+2V
1
CN204 (1/26)
DPR_+2V
2
CN204 (2/26)
DPR_+2V
3
CN204 (3/26)
DPR_+2V
4
CN204 (4/26)
CL1901
R1904
100k
Q1904
DTC144EE-TL
(RX)
(TX)
+3V-6
+3V-7
006-Q2, 017-X8, 019-P4
ENB_RX_5V
C1921
0.022uF
IC1905
SI9936DY-T1
+5V (D)
FL1903
1.5uF
+5V
CN906 (14/20)
14
SW_+5V_D
CN906 (15/20)
15
SW_+5V_D
C1903
0.1uF
C1910
150uF
6.3V
C1928
0.1uF
DPR_+5V_D
1
CN205 (1/30)
R1905
100k
Q1905
DTC144EE-TL
006-Q5, 015-J4, 017-X8, 019-P6
ENB_TX_5V
C1922
0.022uF
-5V (D)
FL1904
1.5uF
CN906 (18/20)
18
SW_-5V_D
CN906 (19/20)
19
SW_-5V_D
C1904
0.1uF
C1911
150uF
6.3V
C1929
0.1uF
-5V
(AUDIO)
+3V-8
IC1906
SI9936DY-T1
R1906
100k
Q1906
DTC144EE-TL
013-I10, 017-K6
ENB_AUDIO
C1923
0.022uF
+9V
FL1905
1.5uF
CN909 (24/30)
24
SW_+9V
C1905
0.1uF
C1912
33uF
10V
C1930
0.1uF
-9V
FL1906
1.5uF
CN909 (23/30)
23
SW_-9V
C1906
0.1uF
C1913
33uF
10V
C1931
0.1uF
1
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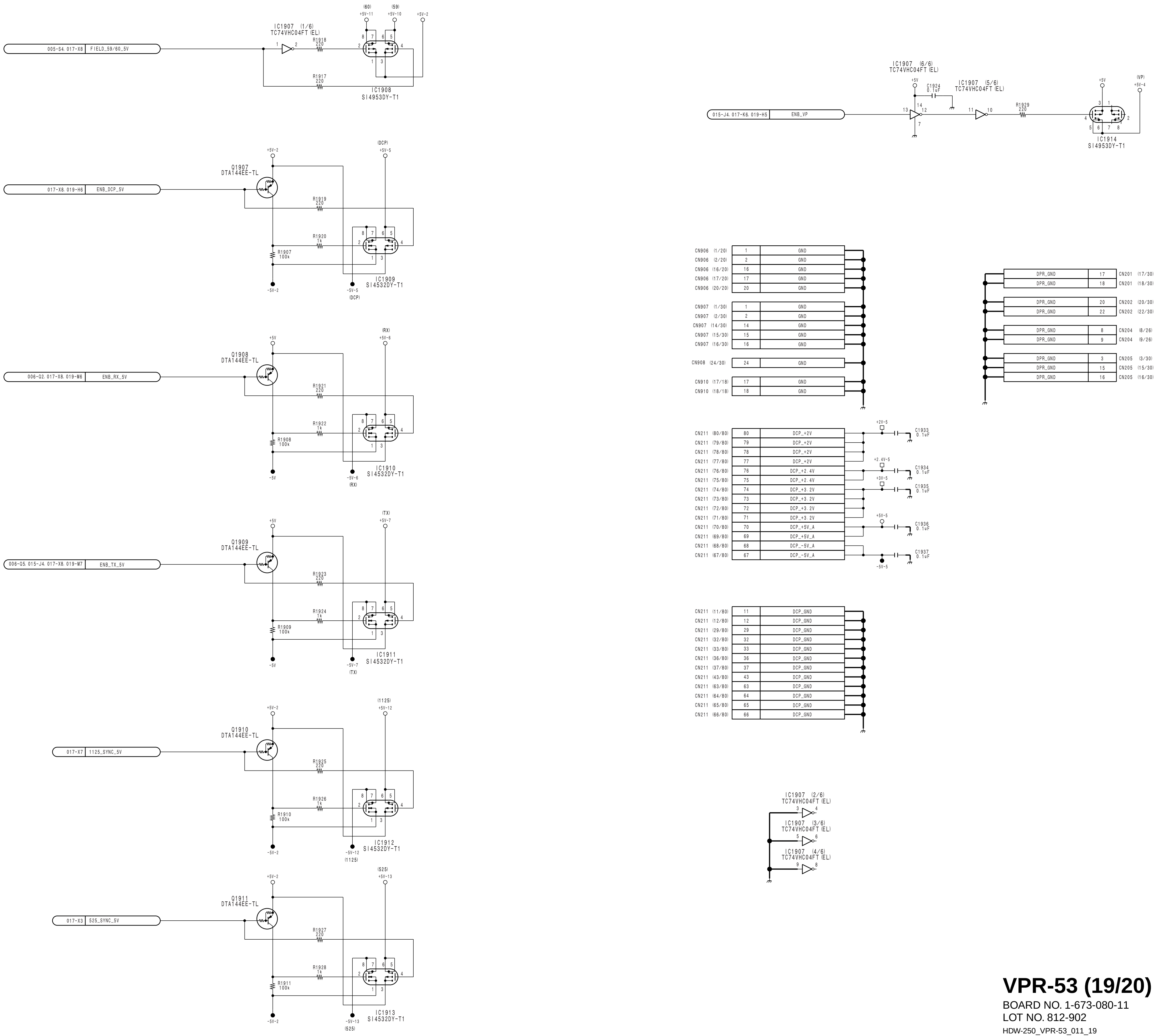
H

5-32 (a)

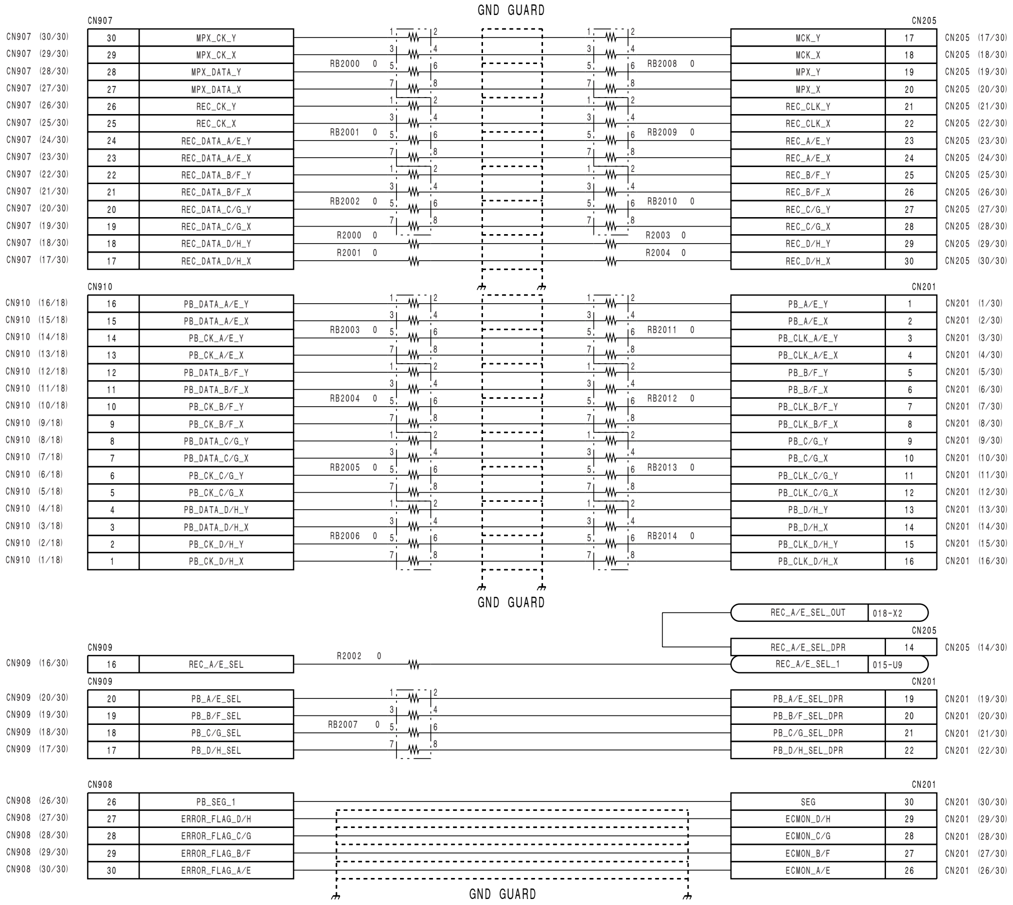

005-S4, 017-X8
FIELD_59/60_5V
IC1907 (1/6)
TC74VHC04FT (EL)
R1918 220
R1917 220
(60) +5V-11
(59) +5V-10
+5V-2
IC1908
SI4953DY-T1
017-X8, 019-H6
ENB_DCP_5V
Q1907
DTA144EE-TL
R1919 220
R1920 1k
R1907 100k
(DCP) +5V-5
IC1909
SI4532DY-T1
-5V-2
-5V-5 (DCP)
006-Q2, 017-X8, 019-M6
ENB_RX_5V
Q1908
DTA144EE-TL
R1921 220
R1922 1k
R1908 100k
(RX) +5V-6
IC1910
SI4532DY-T1
-5V-6 (RX)
006-Q5, 015-J4, 017-X8, 019-M7
ENB_TX_5V
Q1909
DTA144EE-TL
R1923 220
R1924 1k
R1909 100k
(TX) +5V-7
IC1911
SI4532DY-T1
-5V-7 (TX)
017-X7
1125_SYNC_5V
Q1910
DTA144EE-TL
R1925 220
R1926 1k
R1910 100k
(1125) +5V-12
IC1912
SI4532DY-T1
-5V-12 (1125)
017-X3
525_SYNC_5V
Q1911
DTA144EE-TL
R1927 220
R1928 1k
R1911 100k
(525) +5V-13
IC1913
SI4532DY-T1
-5V-13 (525)
015-J4, 017-K6, 019-H5
ENB_VP
IC1907 (6/6)
TC74VHC04FT (EL)
C1924 0.1uF
IC1907 (5/6)
TC74VHC04FT (EL)
R1929 220
(VP) +5V-4
IC1914
SI4953DY-T1
CN906 (1/20) 1 GND
CN906 (2/20) 2 GND
CN906 (16/20) 16 GND
CN906 (17/20) 17 GND
CN906 (20/20) 20 GND
CN907 (1/30) 1 GND
CN907 (2/30) 2 GND
CN907 (14/30) 14 GND
CN907 (15/30) 15 GND
CN907 (16/30) 16 GND
CN908 (24/30) 24 GND
CN910 (17/18) 17 GND
CN910 (18/18) 18 GND
DPR_GND 17 CN201 (17/30)
DPR_GND 18 CN201 (18/30)
DPR_GND 20 CN202 (20/30)
DPR_GND 22 CN202 (22/30)
DPR_GND 8 CN204 (8/26)
DPR_GND 9 CN204 (9/26)
DPR_GND 3 CN205 (3/30)
DPR_GND 15 CN205 (15/30)
DPR_GND 16 CN205 (16/30)
CN211 (80/80) 80 DCP_+2V
CN211 (79/80) 79 DCP_+2V
CN211 (78/80) 78 DCP_+2V
CN211 (77/80) 77 DCP_+2V
CN211 (76/80) 76 DCP_+2.4V
CN211 (75/80) 75 DCP_+2.4V
CN211 (74/80) 74 DCP_+3.2V
CN211 (73/80) 73 DCP_+3.2V
CN211 (72/80) 72 DCP_+3.2V
CN211 (71/80) 71 DCP_+3.2V
CN211 (70/80) 70 DCP_+5V_A
CN211 (69/80) 69 DCP_+5V_A
CN211 (68/80) 68 DCP_-5V_A
CN211 (67/80) 67 DCP_-5V_A
+2V-5
C1933 0.1uF
+2.4V-5
C1934 0.1uF
+3V-5
C1935 0.1uF
+5V-5
C1936 0.1uF
C1937 0.1uF
-5V-5
CN211 (11/80) 11 DCP_GND
CN211 (12/80) 12 DCP_GND
CN211 (29/80) 29 DCP_GND
CN211 (32/80) 32 DCP_GND
CN211 (33/80) 33 DCP_GND
CN211 (36/80) 36 DCP_GND
CN211 (37/80) 37 DCP_GND
CN211 (43/80) 43 DCP_GND
CN211 (63/80) 63 DCP_GND
CN211 (64/80) 64 DCP_GND
CN211 (65/80) 65 DCP_GND
CN211 (66/80) 66 DCP_GND
IC1907 (2/6)
TC74VHC04FT (EL)
IC1907 (3/6)
TC74VHC04FT (EL)
IC1907 (4/6)
TC74VHC04FT (EL)

VPR-53 (19/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_19

VPR-53 (20/20)

HDW-250 (J) : S/N 30001 through 30050

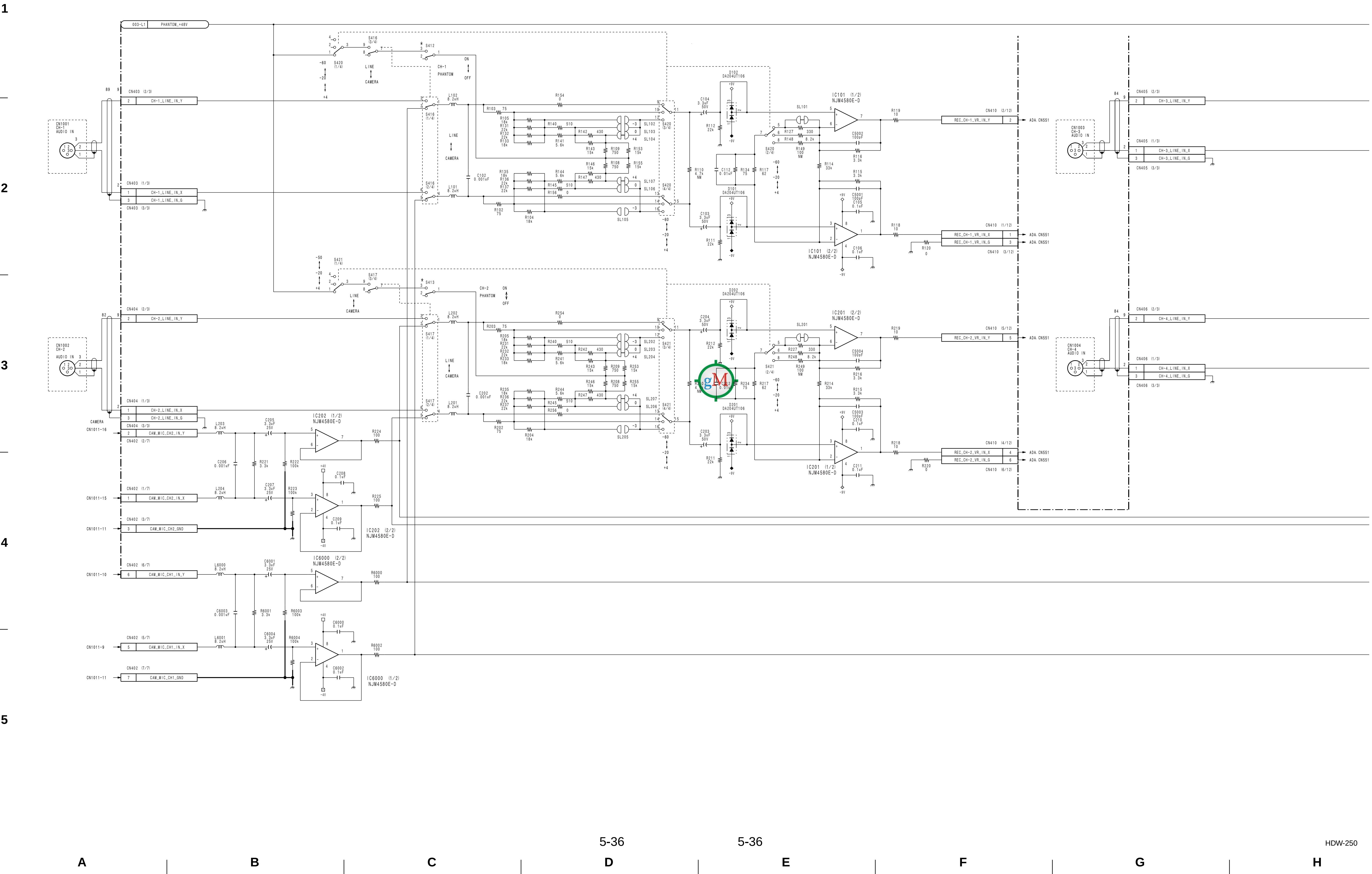

GND GUARD
CN907
CN205
CN907 (30/30) 30 MPX_CK_Y — MCK_Y 17 CN205 (17/30)
CN907 (29/30) 29 MPX_CK_X — MCK_X 18 CN205 (18/30)
CN907 (28/30) 28 MPX_DATA_Y — MPX_Y 19 CN205 (19/30)
CN907 (27/30) 27 MPX_DATA_X — MPX_X 20 CN205 (20/30)
CN907 (26/30) 26 REC_CK_Y — REC_CLK_Y 21 CN205 (21/30)
CN907 (25/30) 25 REC_CK_X — REC_CLK_X 22 CN205 (22/30)
CN907 (24/30) 24 REC_DATA_A/E_Y — REC_A/E_Y 23 CN205 (23/30)
CN907 (23/30) 23 REC_DATA_A/E_X — REC_A/E_X 24 CN205 (24/30)
CN907 (22/30) 22 REC_DATA_B/F_Y — REC_B/F_Y 25 CN205 (25/30)
CN907 (21/30) 21 REC_DATA_B/F_X — REC_B/F_X 26 CN205 (26/30)
CN907 (20/30) 20 REC_DATA_C/G_Y — REC_C/G_Y 27 CN205 (27/30)
CN907 (19/30) 19 REC_DATA_C/G_X — REC_C/G_X 28 CN205 (28/30)
CN907 (18/30) 18 REC_DATA_D/H_Y — REC_D/H_Y 29 CN205 (29/30)
CN907 (17/30) 17 REC_DATA_D/H_X — REC_D/H_X 30 CN205 (30/30)
RB2000 0
RB2001 0
RB2002 0
R2000 0
R2001 0
RB2008 0
RB2009 0
RB2010 0
R2003 0
R2004 0
CN910
CN201
CN910 (16/18) 16 PB_DATA_A/E_Y — PB_A/E_Y 1 CN201 (1/30)
CN910 (15/18) 15 PB_DATA_A/E_X — PB_A/E_X 2 CN201 (2/30)
CN910 (14/18) 14 PB_CK_A/E_Y — PB_CLK_A/E_Y 3 CN201 (3/30)
CN910 (13/18) 13 PB_CK_A/E_X — PB_CLK_A/E_X 4 CN201 (4/30)
CN910 (12/18) 12 PB_DATA_B/F_Y — PB_B/F_Y 5 CN201 (5/30)
CN910 (11/18) 11 PB_DATA_B/F_X — PB_B/F_X 6 CN201 (6/30)
CN910 (10/18) 10 PB_CK_B/F_Y — PB_CLK_B/F_Y 7 CN201 (7/30)
CN910 (9/18) 9 PB_CK_B/F_X — PB_CLK_B/F_X 8 CN201 (8/30)
CN910 (8/18) 8 PB_DATA_C/G_Y — PB_C/G_Y 9 CN201 (9/30)
CN910 (7/18) 7 PB_DATA_C/G_X — PB_C/G_X 10 CN201 (10/30)
CN910 (6/18) 6 PB_CK_C/G_Y — PB_CLK_C/G_Y 11 CN201 (11/30)
CN910 (5/18) 5 PB_CK_C/G_X — PB_CLK_C/G_X 12 CN201 (12/30)
CN910 (4/18) 4 PB_DATA_D/H_Y — PB_D/H_Y 13 CN201 (13/30)
CN910 (3/18) 3 PB_DATA_D/H_X — PB_D/H_X 14 CN201 (14/30)
CN910 (2/18) 2 PB_CK_D/H_Y — PB_CLK_D/H_Y 15 CN201 (15/30)
CN910 (1/18) 1 PB_CK_D/H_X — PB_CLK_D/H_X 16 CN201 (16/30)
RB2003 0
RB2004 0
RB2005 0
RB2006 0
RB2011 0
RB2012 0
RB2013 0
RB2014 0
GND GUARD
REC_A/E_SEL_OUT 018-X2
CN205
REC_A/E_SEL_DPR 14 CN205 (14/30)
CN909
CN909 (16/30) 16 REC_A/E_SEL
R2002 0
REC_A/E_SEL_1 015-U9
CN909
CN201
CN909 (20/30) 20 PB_A/E_SEL — PB_A/E_SEL_DPR 19 CN201 (19/30)
CN909 (19/30) 19 PB_B/F_SEL — PB_B/F_SEL_DPR 20 CN201 (20/30)
CN909 (18/30) 18 PB_C/G_SEL — PB_C/G_SEL_DPR 21 CN201 (21/30)
CN909 (17/30) 17 PB_D/H_SEL — PB_D/H_SEL_DPR 22 CN201 (22/30)
RB2007 0
CN908
CN201
CN908 (26/30) 26 PB_SEG_1 — SEG 30 CN201 (30/30)
CN908 (27/30) 27 ERROR_FLAG_D/H — ECMON_D/H 29 CN201 (29/30)
CN908 (28/30) 28 ERROR_FLAG_C/G — ECMON_C/G 28 CN201 (28/30)
CN908 (29/30) 29 ERROR_FLAG_B/F — ECMON_B/F 27 CN201 (27/30)
CN908 (30/30) 30 ERROR_FLAG_A/E — ECMON_A/E 26 CN201 (26/30)
GND GUARD

VPR-53 (20/20)

BOARD NO. 1-673-080-11
LOT NO. 812-902
HDW-250_VPR-53_011_20

CP-337 (1/3)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher



1
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A
B
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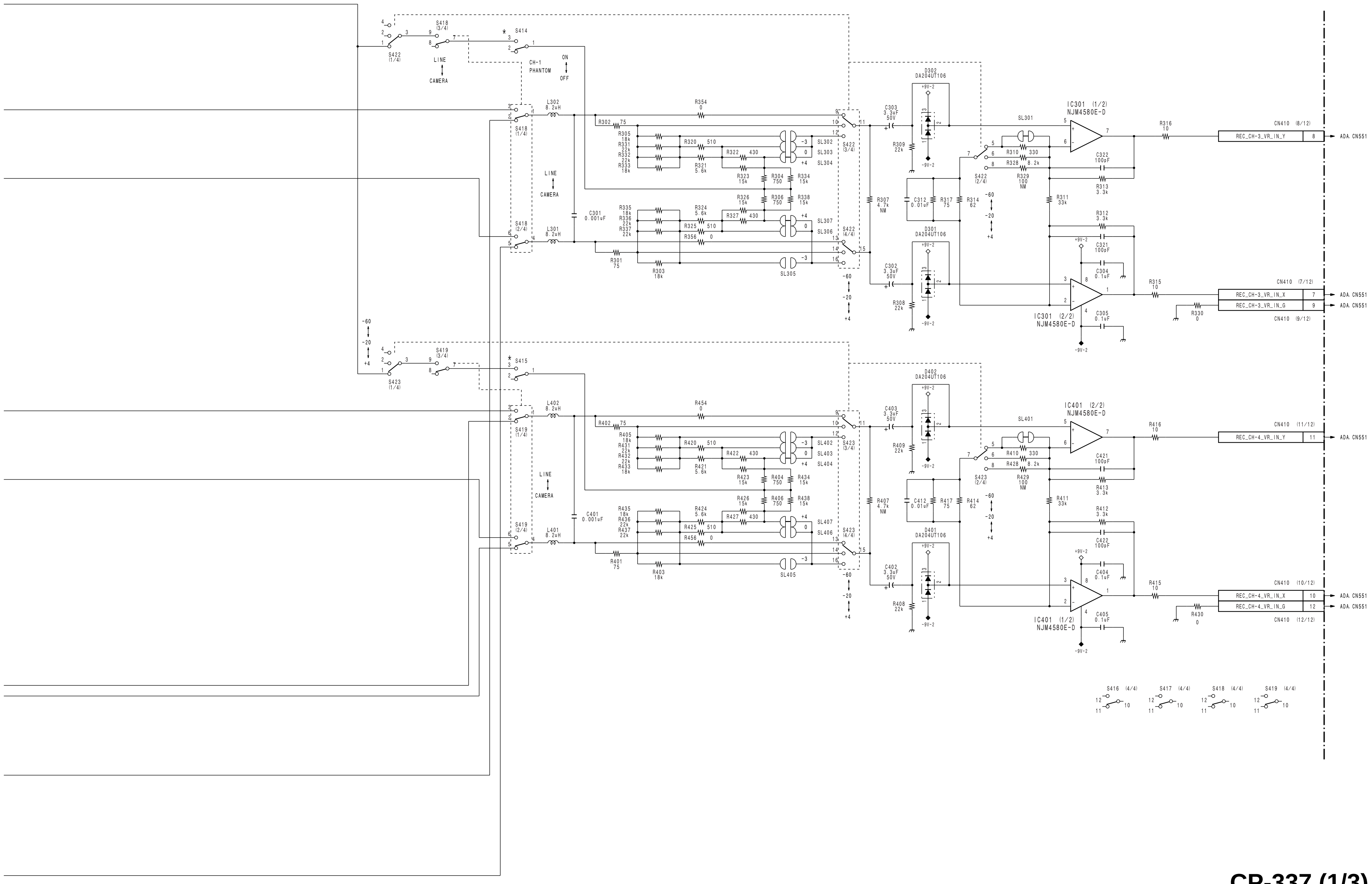
F
G
H
003-L1 PHANTOM_+48V
CN1001 CH-1 AUDIO IN
CN1002 CH-2 AUDIO IN
CN1003 CH-3 AUDIO IN
CN1004 CH-4 AUDIO IN
CN403 (2/3) CH-1_LINE_IN_Y
CN403 (1/3) CH-1_LINE_IN_X
CH-1_LINE_IN_G
CN403 (3/3)
CN404 (2/3) CH-2_LINE_IN_Y
CN404 (1/3) CH-2_LINE_IN_X
CH-2_LINE_IN_G
CN404 (3/3)
CAMERA
CN1011-16 CN402 (2/7) CAM_MIC_CH2_IN_Y
CN1011-15 CN402 (1/7) CAM_MIC_CH2_IN_X
CN1011-11 CN402 (3/7) CAM_MIC_CH2_GND
CN1011-10 CN402 (6/7) CAM_MIC_CH1_IN_Y
CN1011-9 CN402 (5/7) CAM_MIC_CH1_IN_X
CN1011-11 CN402 (7/7) CAM_MIC_CH1_GND
S420 (1/4) -60 -20 +4
S416 (3/4) LINE CAMERA
S412 CH-1 PHANTOM ON OFF
S421 (1/4) -50 -20 +4
S417 (3/4) LINE CAMERA
S413 CH-2 PHANTOM ON OFF
D102 DA204UT106
D101 DA204UT106
D202 DA204UT106
D201 DA204UT106
IC101 (1/2) NJM4580E-D
IC101 (2/2) NJM4580E-D
IC201 (2/2) NJM4580E-D
IC201 (1/2) NJM4580E-D
IC202 (1/2) NJM4580E-D
IC202 (2/2) NJM4580E-D
IC6000 (2/2) NJM4580E-D
IC6000 (1/2) NJM4580E-D
SL101
SL201
CN410 (2/12) REC_CH-1_VR_IN_Y ADA.CN551
CN410 (1/12) REC_CH-1_VR_IN_X ADA.CN551
REC_CH-1_VR_IN_G ADA.CN551
CN410 (3/12)
CN410 (5/12) REC_CH-2_VR_IN_Y ADA.CN551
CN410 (4/12) REC_CH-2_VR_IN_X ADA.CN551
REC_CH-2_VR_IN_G ADA.CN551
CN410 (6/12)
CN405 (2/3) CH-3_LINE_IN_Y
CN405 (1/3) CH-3_LINE_IN_X
CH-3_LINE_IN_G
CN405 (3/3)
CN406 (2/3) CH-4_LINE_IN_Y
CN406 (1/3) CH-4_LINE_IN_X
CH-4_LINE_IN_G
CN406 (3/3)

5-36


S422 (1/4)
S418 (3/4)
S414
LINE
CAMERA
CH-1 PHANTOM
ON
OFF
L302 8.2uH
S418 (1/4)
S418 (2/4)
L301 8.2uH
C301 0.001uF
R354 0
SL302
SL303
SL304
SL307
SL306
SL305
S422 (3/4)
S422 (4/4)
D302 DA204UT106
D301 DA204UT106
C303 3.3uF 50V
C302 3.3uF 50V
IC301 (1/2) NJM4580E-D
IC301 (2/2) NJM4580E-D
SL301
S422 (2/4)
-60
-20
+4
R316 10
R315 10
R330 0
CN410 (8/12)
CN410 (7/12)
CN410 (9/12)
REC_CH-3_VR_IN_Y
REC_CH-3_VR_IN_X
REC_CH-3_VR_IN_G
ADA CN551
+9V-2
-9V-2
S423 (1/4)
S419 (3/4)
S415
L402 8.2uH
S419 (1/4)
S419 (2/4)
L401 8.2uH
C401 0.001uF
R454 0
SL402
SL403
SL404
SL407
SL406
SL405
S423 (3/4)
S423 (4/4)
S423 (2/4)
D402 DA204UT106
D401 DA204UT106
C403 3.3uF 50V
C402 3.3uF 50V
IC401 (2/2) NJM4580E-D
IC401 (1/2) NJM4580E-D
SL401
R416 10
R415 10
R430 0
CN410 (11/12)
CN410 (10/12)
CN410 (12/12)
REC_CH-4_VR_IN_Y
REC_CH-4_VR_IN_X
REC_CH-4_VR_IN_G
S416 (4/4)
S417 (4/4)
S418 (4/4)
S419 (4/4)
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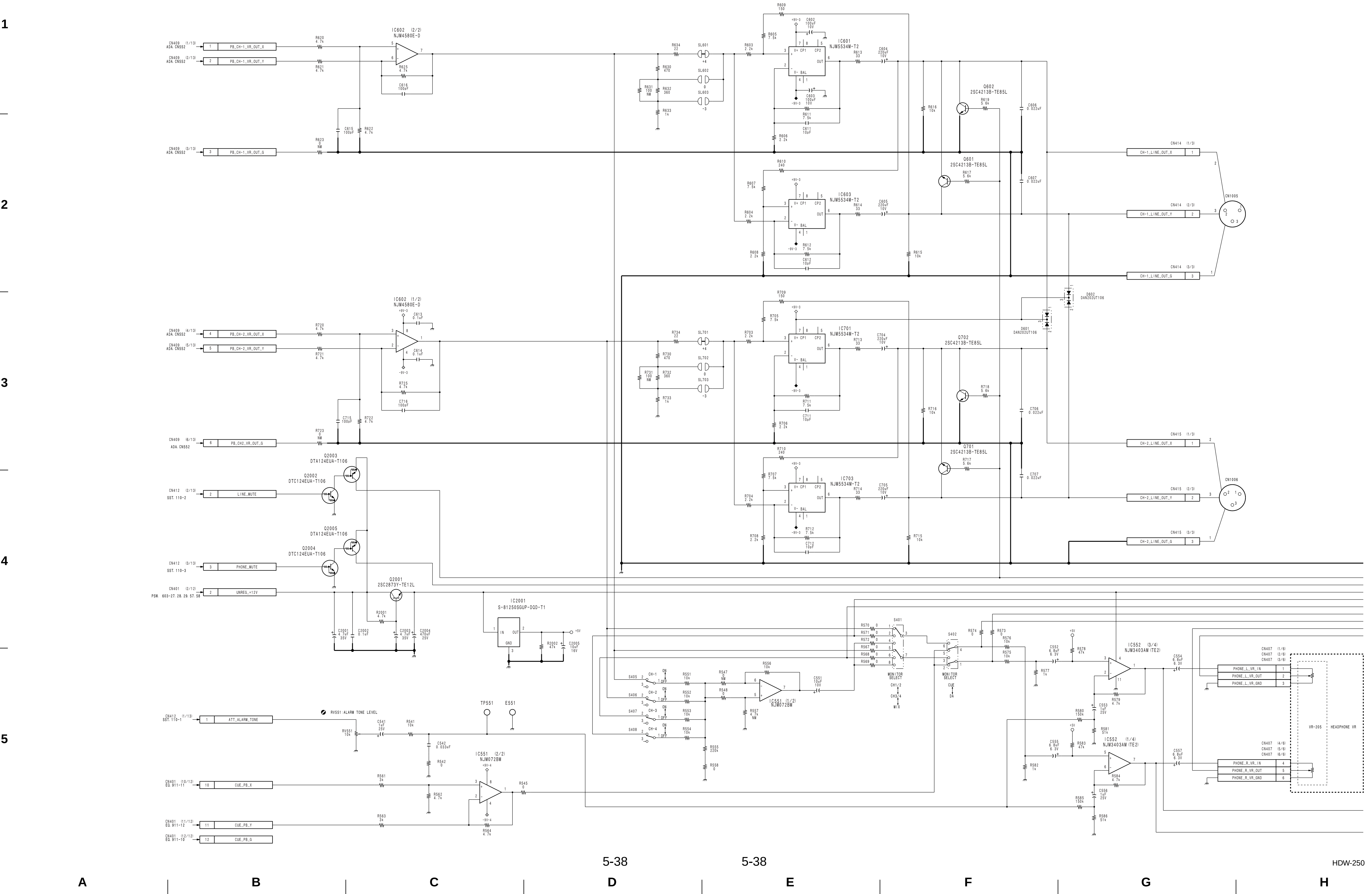
CP-337 (1/3)

BOARD NO. 1-673-085-11
LOT NO. 812-
HDW-250_CP-337_011_1

CP-337 (2/3)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
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A
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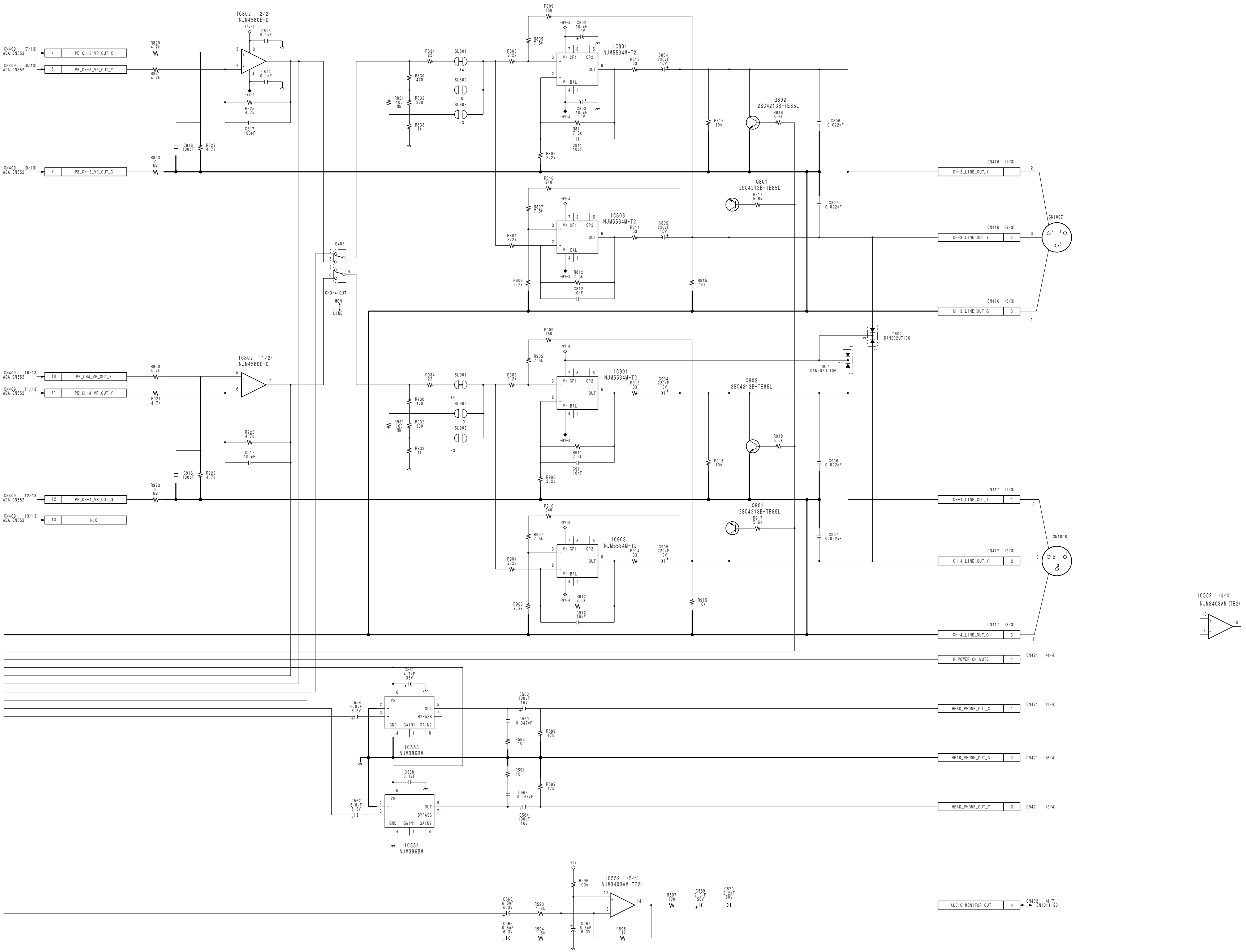
CN409 ADA CN552
PB_CH-1_VR_OUT_X
PB_CH-1_VR_OUT_Y
PB_CH-1_VR_OUT_G
PB_CH-2_VR_OUT_X
PB_CH-2_VR_OUT_Y
PB_CH2_VR_OUT_G
IC602 (2/2) NJM4580E-D
IC602 (1/2) NJM4580E-D
IC601 NJM5534M-T2
IC603 NJM5534M-T2
IC701 NJM5534M-T2
IC703 NJM5534M-T2
Q602 2SC4213B-TE85L
Q601 2SC4213B-TE85L
Q702 2SC4213B-TE85L
Q701 2SC4213B-TE85L
D602 DAN202UT106
D601 DAN202UT106
CN414
CH-1_LINE_OUT_X
CH-1_LINE_OUT_Y
CH-1_LINE_OUT_G
CN1005
CN415
CH-2_LINE_OUT_X
CH-2_LINE_OUT_Y
CH-2_LINE_OUT_G
CN1006
CN412 SST. 110-2
LINE_MUTE
CN412 SST. 110-3
PHONE_MUTE
Q2003 DTA124EUA-T106
Q2002 DTC124EUA-T106
Q2005 DTA124EUA-T106
Q2004 DTC124EUA-T106
Q2001 2SC2873Y-TE12L
CN401 PSW. 603-27,28,29,57,58
UNREG_+12V
IC2001 S-81250SGUP-DQD-T1
ATT_ALARM_TONE
RV551:ALARM TONE LEVEL
TP551
E551
CUE_PB_X
CUE_PB_Y
CUE_PB_G
IC551 (2/2) NJM072BM
IC551 (1/2) NJM072BM
S401 MONITOR SELECT
CH1/2
CH3/4
MIX
S402 MONITOR SELECT
CUE
DA
S405
S406
S407
S408
IC552 (3/4) NJM3403AM(TE2)
IC552 (1/4) NJM3403AM(TE2)
CN407
PHONE_L_VR_IN
PHONE_L_VR_OUT
PHONE_L_VR_GND
PHONE_R_VR_IN
PHONE_R_VR_OUT
PHONE_R_VR_GND
VR-205 HEADPHONE VR

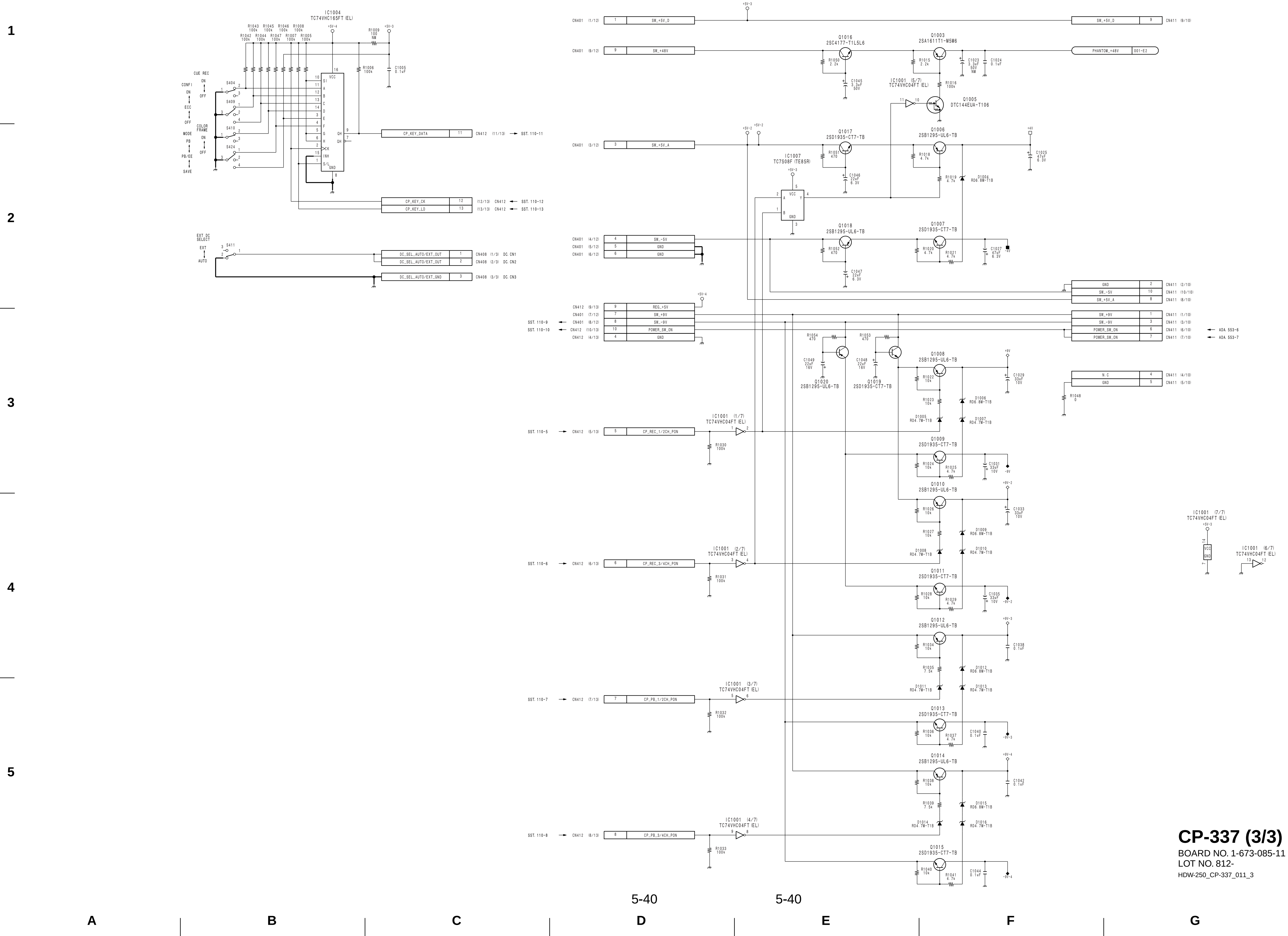
5-38


IC802 (2/2) NJM4580E-D
IC802 (1/2) NJM4580E-D
IC801 NJM5534M-T2
IC803 NJM5534M-T2
IC901 NJM5534M-T2
IC903 NJM5534M-T2
Q802 2SC4213B-TE85L
Q801 2SC4213B-TE85L
Q902 2SC4213B-TE85L
Q901 2SC4213B-TE85L
D802 DAN202UT106
D801 DAN202UT106
S403
CH3/4 OUT
MON
LINE
SL801
SL802
SL803
SL901
SL902
SL903
IC553 NJM386BM
IC554 NJM386BM
IC552 (4/4) NJM3403AM(TE2)
IC552 (2/4) NJM3403AM(TE2)
CN1007
CN1008
CN409 (7/13) ADA.CN552 PB_CH-3_VR_OUT_X
CN409 (8/13) ADA.CN552 PB_CH-3_VR_OUT_Y
CN409 (9/13) ADA.CN552 PB_CH-3_VR_OUT_G
CN409 (10/13) ADA.CN552 PB_CH4_VR_OUT_X
CN409 (11/13) ADA.CN552 PB_CH-4_VR_OUT_Y
CN409 (12/13) ADA.CN552 PB_CH-4_VR_OUT_G
CN409 (13/13) ADA.CN552 N.C
CN416 (1/3) CH-3_LINE_OUT_X
CN416 (2/3) CH-3_LINE_OUT_Y
CN416 (3/3) CH-3_LINE_OUT_G
CN417 (1/3) CH-4_LINE_OUT_X
CN417 (2/3) CH-4_LINE_OUT_Y
CN417 (3/3) CH-4_LINE_OUT_G
CN421 (4/4) H-POWER_ON_MUTE
CN421 (1/4) HEAD_PHONE_OUT_X
CN421 (3/4) HEAD_PHONE_OUT_G
CN421 (2/4) HEAD_PHONE_OUT_Y
CN402 (4/7) AUDIO_MONITOR_OUT CN1011-20
1
2
3
4
5
I
J
K
L
M
N
O
P

CP-337 (2/3)

BOARD NO. 1-673-085-11
LOT NO. 812-
HDW-250_CP-337_011_2

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) :   S/N 30001 and Higher


1
2
3
4
5
A
B
C
D
E
F
G
H
IC1004
TC74VHC165FT (EL)
R1043 100k
R1045 100k
R1046 100k
R1008 100k
R1042 100k
R1044 100k
R1047 100k
R1007 100k
R1005 100k
R1009 100 NM
R1006 100k
C1005 0.1uF
CUE REC
CONFI
ECC
COLOR FRAME
MODE
PB
PB/EE
SAVE
S404
S409
S410
S424
CP_KEY_DATA
CN412 (11/13) SST. 110-11
CP_KEY_CK
CP_KEY_LD
(12/13) CN412 SST. 110-12
(13/13) CN412 SST. 110-13
EXT.DC SELECT
EXT
AUTO
S411
DC_SEL_AUTO/EXT_OUT
DC_SEL_AUTO/EXT_GND
CN408 (1/3) DC.CN1
CN408 (2/3) DC.CN2
CN408 (3/3) DC.CN3
CN401 (1/12) SW_+5V_D
CN401 (9/12) SW_+48V
CN401 (3/12) SW_+5V_A
CN401 (4/12) SW_-5V
CN401 (5/12) GND
CN401 (6/12) GND
CN412 (9/13) REG_+5V
CN401 (7/12) SW_+9V
SST. 110-9 CN401 (8/12) SW_-9V
SST. 110-10 CN412 (10/13) POWER_SW_ON
CN412 (4/13) GND
Q1016 2SC4177-T1L5L6
Q1003 2SA1611T1-M5M6
Q1005 DTC144EUA-T106
IC1001 (5/7) TC74VHC04FT (EL)
Q1017 2SD1935-CT7-TB
Q1006 2SB1295-UL6-TB
IC1007 TC7S08F (TE85R)
Q1018 2SB1295-UL6-TB
Q1007 2SD1935-CT7-TB
Q1020 2SB1295-UL6-TB
Q1019 2SD1935-CT7-TB
Q1008 2SB1295-UL6-TB
Q1009 2SD1935-CT7-TB
Q1010 2SB1295-UL6-TB
Q1011 2SD1935-CT7-TB
Q1012 2SB1295-UL6-TB
Q1013 2SD1935-CT7-TB
Q1014 2SB1295-UL6-TB
Q1015 2SD1935-CT7-TB
PHANTOM_+48V 001-E2
CN411 (9/10) SW_+5V_D
CN411 (2/10) GND
CN411 (10/10) SW_-5V
CN411 (8/10) SW_+5V_A
CN411 (1/10) SW_+9V
CN411 (3/10) SW_-9V
CN411 (6/10) POWER_SW_ON ADA.553-6
CN411 (7/10) POWER_SW_ON ADA.553-7
CN411 (4/10) N.C
CN411 (5/10) GND
R1048 0
IC1001 (1/7) TC74VHC04FT (EL)
SST. 110-5 CN412 (5/13) CP_REC_1/2CH_PON
R1030 100k
IC1001 (2/7) TC74VHC04FT (EL)
SST. 110-6 CN412 (6/13) CP_REC_3/4CH_PON
R1031 100k
IC1001 (3/7) TC74VHC04FT (EL)
SST. 110-7 CN412 (7/13) CP_PB_1/2CH_PON
R1032 100k
IC1001 (4/7) TC74VHC04FT (EL)
SST. 110-8 CN412 (8/13) CP_PB_3/4CH_PON
R1033 100k
IC1001 (7/7) TC74VHC04FT (EL)
IC1001 (6/7) TC74VHC04FT (EL)

CP-337 (3/3)

BOARD NO. 1-673-085-11
LOT NO. 812-
HDW-250_CP-337_011_3

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ADA-44 (1/3)

ADA-44 (1/3)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

1

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3

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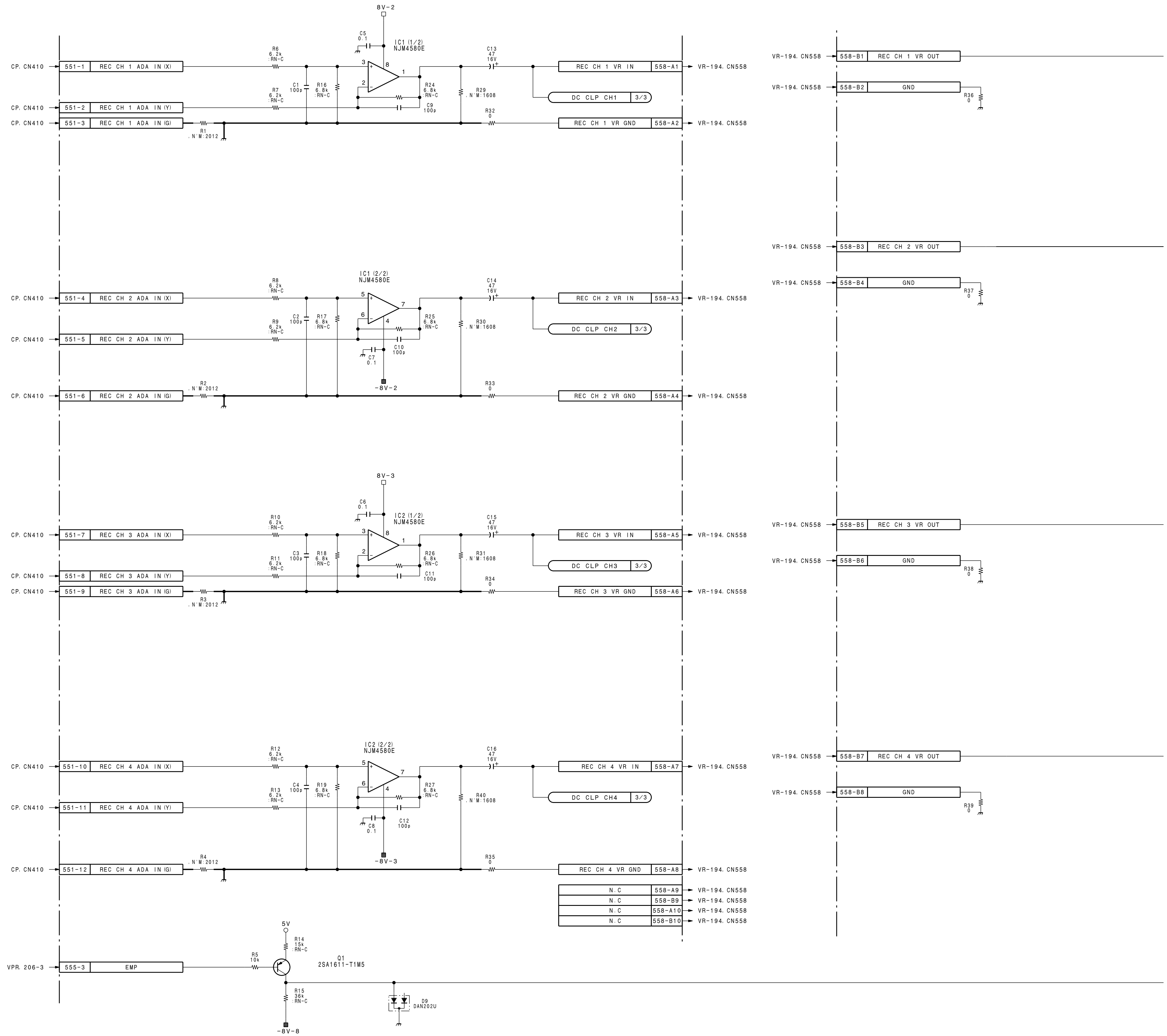
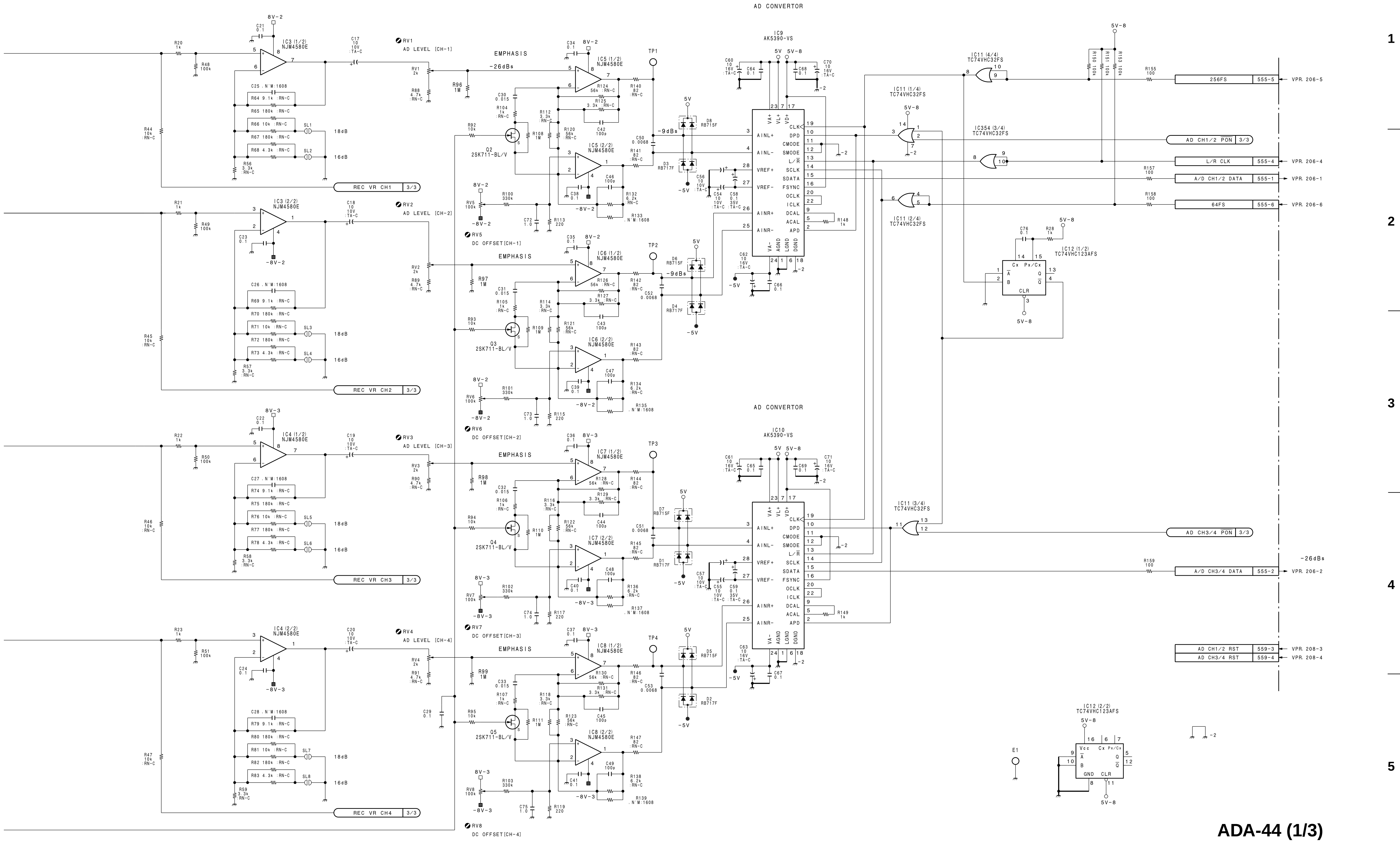
5


8V-2
C5
0.1
IC1 (1/2)
NJM4580E
CP, CN410
551-1
REC CH 1 ADA IN (X)
R6
6.2k
:RN-C
C1
100p
R16
6.8k
:RN-C
R7
6.2k
:RN-C
R24
6.8k
:RN-C
C9
100p
C13
47
16V
R29
, N'M:1608
R32
0
REC CH 1 VR IN
558-A1
VR-194, CN558
DC CLP CH1
3/3
CP, CN410
551-2
REC CH 1 ADA IN (Y)
CP, CN410
551-3
REC CH 1 ADA IN (G)
R1
, N'M:2012
REC CH 1 VR GND
558-A2
VR-194, CN558
VR-194, CN558
558-B1
REC CH 1 VR OUT
VR-194, CN558
558-B2
GND
R36
0
VR-194, CN558
558-B3
REC CH 2 VR OUT
VR-194, CN558
558-B4
GND
R37
0
IC1 (2/2)
NJM4580E
CP, CN410
551-4
REC CH 2 ADA IN (X)
R8
6.2k
:RN-C
C2
100p
R17
6.8k
:RN-C
R9
6.2k
:RN-C
R25
6.8k
:RN-C
C10
100p
C7
0.1
-8V-2
C14
47
16V
R30
, N'M:1608
REC CH 2 VR IN
558-A3
VR-194, CN558
DC CLP CH2
3/3
CP, CN410
551-5
REC CH 2 ADA IN (Y)
CP, CN410
551-6
REC CH 2 ADA IN (G)
R2
, N'M:2012
R33
0
REC CH 2 VR GND
558-A4
VR-194, CN558
8V-3
C6
0.1
IC2 (1/2)
NJM4580E
CP, CN410
551-7
REC CH 3 ADA IN (X)
R10
6.2k
:RN-C
C3
100p
R18
6.8k
:RN-C
R11
6.2k
:RN-C
R26
6.8k
:RN-C
C11
100p
C15
47
16V
R31
, N'M:1608
R34
0
REC CH 3 VR IN
558-A5
VR-194, CN558
DC CLP CH3
3/3
CP, CN410
551-8
REC CH 3 ADA IN (Y)
CP, CN410
551-9
REC CH 3 ADA IN (G)
R3
, N'M:2012
REC CH 3 VR GND
558-A6
VR-194, CN558
VR-194, CN558
558-B5
REC CH 3 VR OUT
VR-194, CN558
558-B6
GND
R38
0
IC2 (2/2)
NJM4580E
CP, CN410
551-10
REC CH 4 ADA IN (X)
R12
6.2k
:RN-C
C4
100p
R19
6.8k
:RN-C
R13
6.2k
:RN-C
R27
6.8k
:RN-C
C8
0.1
C12
100p
-8V-3
C16
47
16V
R40
, N'M:1608
REC CH 4 VR IN
558-A7
VR-194, CN558
DC CLP CH4
3/3
CP, CN410
551-11
REC CH 4 ADA IN (Y)
CP, CN410
551-12
REC CH 4 ADA IN (G)
R4
, N'M:2012
R35
0
REC CH 4 VR GND
558-A8
VR-194, CN558
N.C
558-A9
VR-194, CN558
N.C
558-B9
VR-194, CN558
N.C
558-A10
VR-194, CN558
N.C
558-B10
VR-194, CN558
VR-194, CN558
558-B7
REC CH 4 VR OUT
VR-194, CN558
558-B8
GND
R39
0
5V
R14
15k
:RN-C
VPR, 206-3
555-3
EMP
R5
10k
Q1
2SA1611-T1M5
R15
36k
:RN-C
-8V-8
D9
DAN202U

ADA-44 (1/3)


AD CONVERTOR
IC9 AK5390-VS
IC10 AK5390-VS
IC3 (1/2) NJM4580E
IC3 (2/2) NJM4580E
IC4 (1/2) NJM4580E
IC4 (2/2) NJM4580E
IC5 (1/2) NJM4580E
IC5 (2/2) NJM4580E
IC6 (1/2) NJM4580E
IC6 (2/2) NJM4580E
IC7 (1/2) NJM4580E
IC7 (2/2) NJM4580E
IC8 (1/2) NJM4580E
IC8 (2/2) NJM4580E
IC11 (1/4) TC74VHC32FS
IC11 (2/4) TC74VHC32FS
IC11 (3/4) TC74VHC32FS
IC11 (4/4) TC74VHC32FS
IC354 (3/4) TC74VHC32FS
IC12 (1/2) TC74VHC123AFS
IC12 (2/2) TC74VHC123AFS
RV1 AD LEVEL [CH-1]
RV2 AD LEVEL [CH-2]
RV3 AD LEVEL [CH-3]
RV4 AD LEVEL [CH-4]
RV5 DC OFFSET[CH-1]
RV6 DC OFFSET[CH-2]
RV7 DC OFFSET[CH-3]
RV8 DC OFFSET[CH-4]
EMPHASIS
-26dBs
-9dBs
Q2 2SK711-BL/V
Q3 2SK711-BL/V
Q4 2SK711-BL/V
Q5 2SK711-BL/V
D1 RB717F
D2 RB717F
D3 RB717F
D4 RB717F
D5 RB715F
D6 RB715F
D7 RB715F
D8 RB715F
TP1
TP2
TP3
TP4
E1
18dB
16dB
REC VR CH1 3/3
REC VR CH2 3/3
REC VR CH3 3/3
REC VR CH4 3/3
8V-2
8V-3
-8V-2
-8V-3
5V
-5V
5V-8
AINL+
AINL-
VREF+
VREF-
AINR+
AINR-
CLK
DPD
CMODE
SMODE
L/R
SCLK
SDATA
FSYNC
OCLK
ICLK
DCAL
ACAL
APD
VA+
VL+
VD+
VA-
AGND
LGND
DGND
256FS 555-5 VPR. 206-5
AD CH1/2 PON 3/3
L/R CLK 555-4 VPR. 206-4
A/D CH1/2 DATA 555-1 VPR. 206-1
64FS 555-6 VPR. 206-6
AD CH3/4 PON 3/3
A/D CH3/4 DATA 555-2 VPR. 206-2
AD CH1/2 RST 559-3 VPR. 208-3
AD CH3/4 RST 559-4 VPR. 208-4
-26dBs
1
2
3
4
5
I
J
K
L
M
N
O
P

ADA-44 (1/3)

BOARD NO. 1-657-810-11
LOT NO. 812-
HDW-250_ADA-44_011_1

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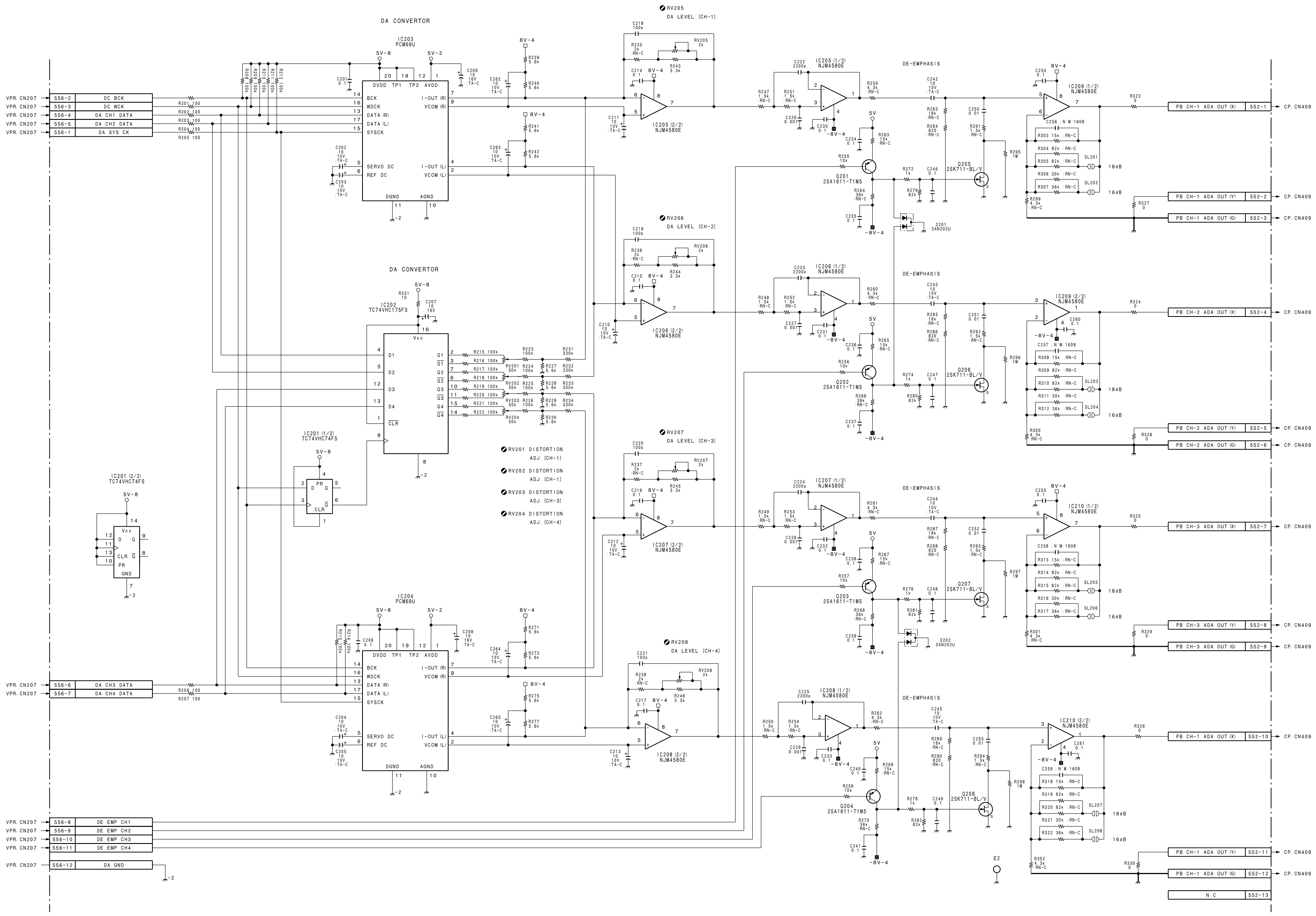
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

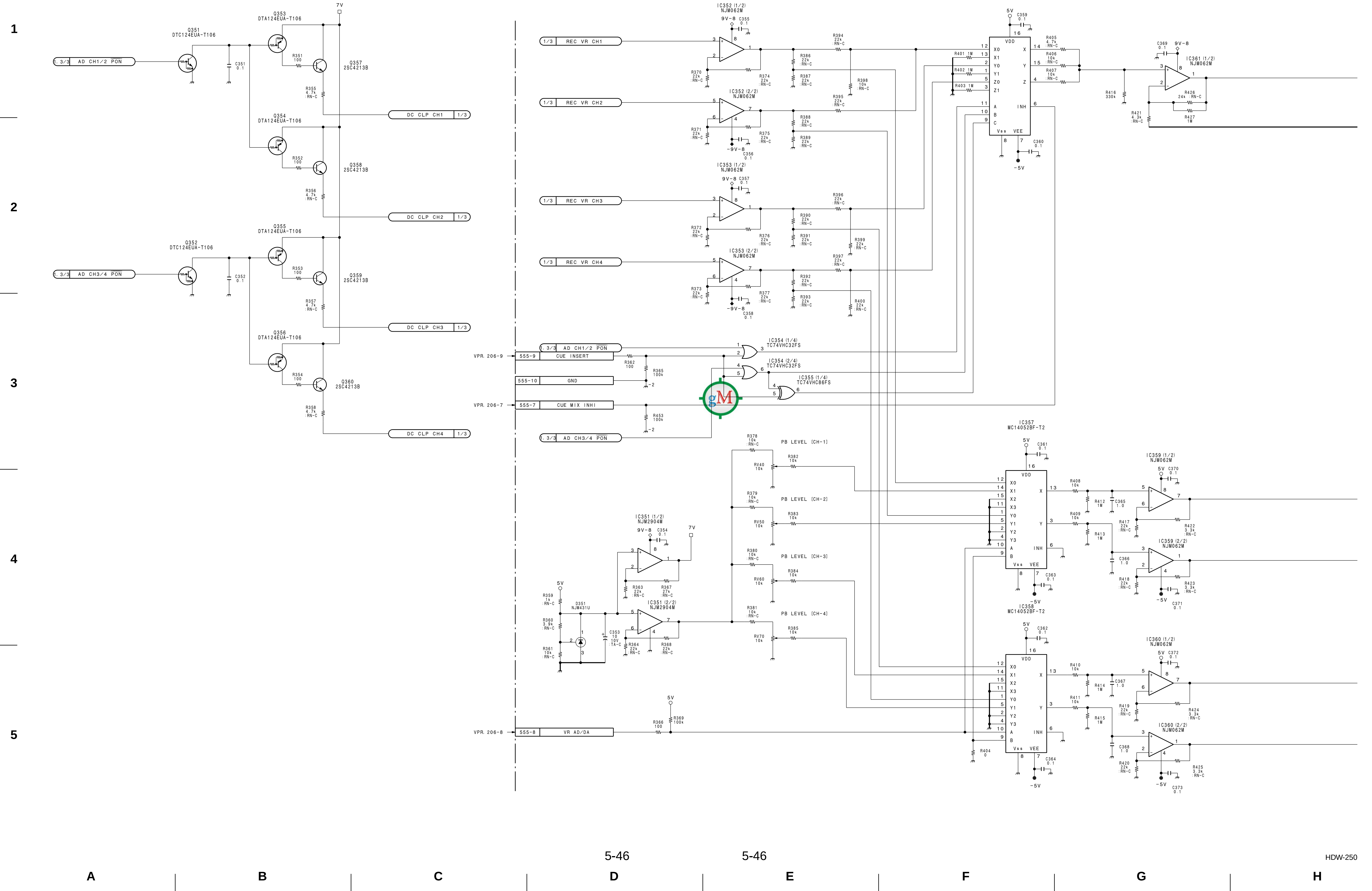

DA CONVERTOR
IC203 PCM69U
IC202 TC74VHC175FS
IC201 (1/2) TC74VHC74FS
IC201 (2/2) TC74VHC74FS
IC204 PCM69U
RV205 DA LEVEL [CH-1]
RV206 DA LEVEL [CH-2]
RV207 DA LEVEL [CH-3]
RV208 DA LEVEL [CH-4]
RV201 DISTORTION ADJ. [CH-1]
RV202 DISTORTION ADJ. [CH-1]
RV203 DISTORTION ADJ. [CH-3]
RV204 DISTORTION ADJ. [CH-4]
IC205 (1/2) NJM4580E
IC205 (2/2) NJM4580E
IC206 (1/2) NJM4580E
IC206 (2/2) NJM4580E
IC207 (1/2) NJM4580E
IC207 (2/2) NJM4580E
IC208 (1/2) NJM4580E
IC208 (2/2) NJM4580E
IC209 (1/2) NJM4580E
IC209 (2/2) NJM4580E
IC210 (1/2) NJM4580E
IC210 (2/2) NJM4580E
DE-EMPHASIS
Q201 2SA1611-T1M5
Q202 2SA1611-T1M5
Q203 2SA1611-T1M5
Q204 2SA1611-T1M5
Q205 2SK711-BL/V
Q206 2SK711-BL/V
Q207 2SK711-BL/V
Q208 2SK711-BL/V
D201 DAN202U
D202 DAN202U
VPR. CN207 556-2 DC BCK
VPR. CN207 556-3 DC WCK
VPR. CN207 556-4 DA CH1 DATA
VPR. CN207 556-5 DA CH2 DATA
VPR. CN207 556-1 DA SYS CK
VPR. CN207 556-6 DA CH3 DATA
VPR. CN207 556-7 DA CH4 DATA
VPR. CN207 556-8 DE EMP CH1
VPR. CN207 556-9 DE EMP CH2
VPR. CN207 556-10 DE EMP CH3
VPR. CN207 556-11 DE EMP CH4
VPR. CN207 556-12 DA GND
PB CH-1 ADA OUT (X) 552-1 CP. CN409
PB CH-1 ADA OUT (Y) 552-2 CP. CN409
PB CH-1 ADA OUT (G) 552-3 CP. CN409
PB CH-2 ADA OUT (X) 552-4 CP. CN409
PB CH-2 ADA OUT (Y) 552-5 CP. CN409
PB CH-2 ADA OUT (G) 552-6 CP. CN409
PB CH-3 ADA OUT (X) 552-7 CP. CN409
PB CH-3 ADA OUT (Y) 552-8 CP. CN409
PB CH-3 ADA OUT (G) 552-9 CP. CN409
PB CH-1 ADA OUT (X) 552-10 CP. CN409
PB CH-1 ADA OUT (Y) 552-11 CP. CN409
PB CH-1 ADA OUT (G) 552-12 CP. CN409
N.C 552-13
18dB
16dB
E2
5V-8
5V-2
8V-4
-8V-4
-2
1
2
3
4
5
A
B
C
D
E
F
G
H

ADA-44 (2/3)

BOARD NO. 1-657-810-11
LOT NO. 812-
HDW-250_ADA-44_011_2

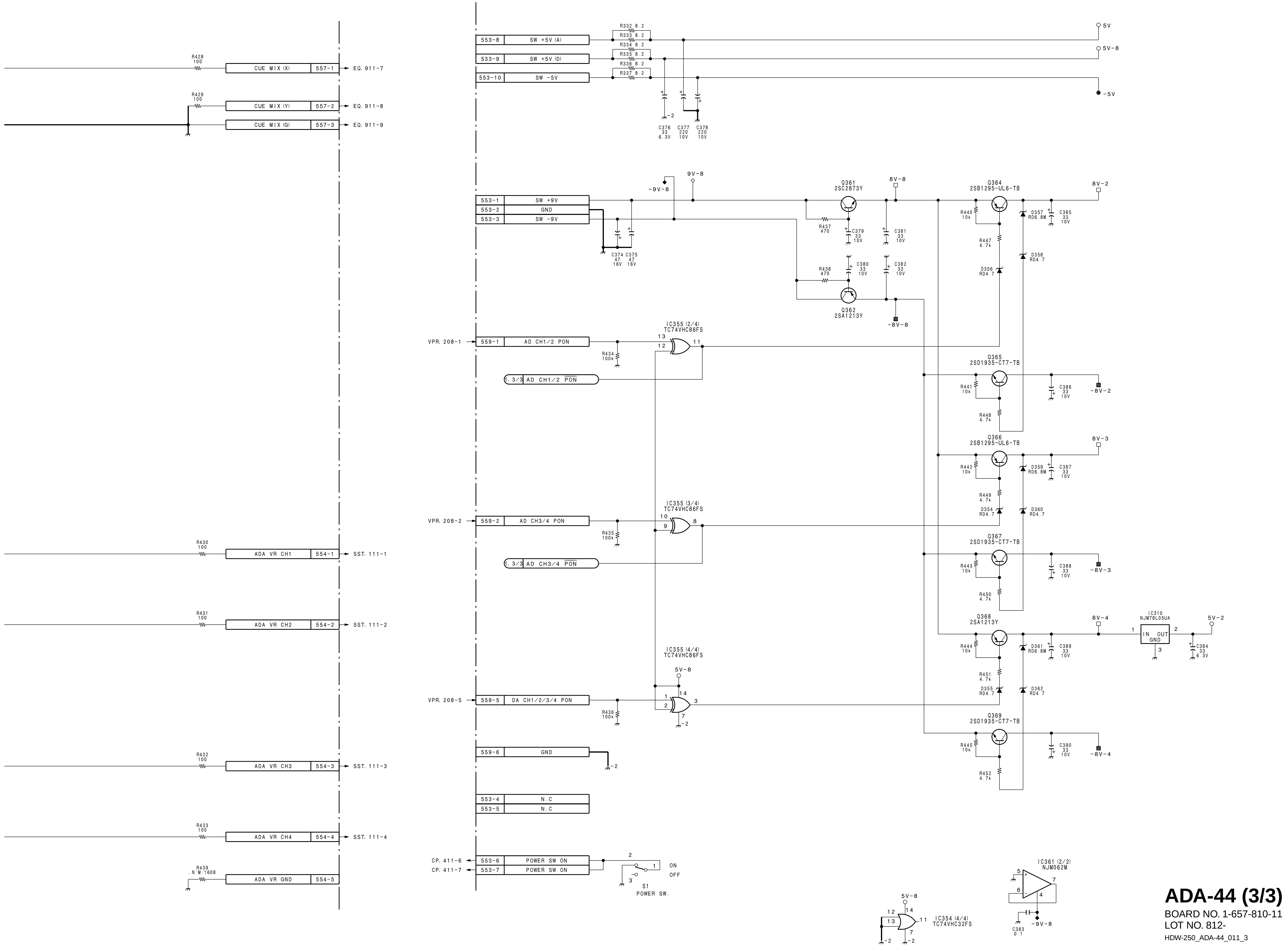
ADA-44 (3/3)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
2
3
4
5
A
B
C
D
E
F
G
H
1/3 AD CH1/2 PON
1/3 AD CH3/4 PON
Q351 DTC124EUA-T106
Q352 DTC124EUA-T106
Q353 DTA124EUA-T106
Q354 DTA124EUA-T106
Q355 DTA124EUA-T106
Q356 DTA124EUA-T106
Q357 2SC4213B
Q358 2SC4213B
Q359 2SC4213B
Q360 2SC4213B
7V
C351 0.1
C352 0.1
R351 100
R352 100
R353 100
R354 100
R355 4.7k :RN-C
R356 4.7k :RN-C
R357 4.7k :RN-C
R358 4.7k :RN-C
DC CLP CH1 1/3
DC CLP CH2 1/3
DC CLP CH3 1/3
DC CLP CH4 1/3
1/3 REC VR CH1
1/3 REC VR CH2
1/3 REC VR CH3
1/3 REC VR CH4
IC352 (1/2) NJM062M
IC352 (2/2) NJM062M
IC353 (1/2) NJM062M
IC353 (2/2) NJM062M
9V-8
-9V-8
C355 0.1
C356 0.1
C357 0.1
C358 0.1
R370 22k :RN-C
R371 22k :RN-C
R372 22k :RN-C
R373 22k :RN-C
R374 22k :RN-C
R375 22k :RN-C
R376 22k :RN-C
R377 22k :RN-C
R386 22k :RN-C
R387 22k :RN-C
R388 22k :RN-C
R389 22k :RN-C
R390 22k :RN-C
R391 22k :RN-C
R392 22k :RN-C
R393 22k :RN-C
R394 22k :RN-C
R395 22k :RN-C
R396 22k :RN-C
R397 22k :RN-C
R398 10k :RN-C
R399 22k :RN-C
R400 22k :RN-C
IC356 MC14053BF-T2
5V
C359 0.1
VDD
X0 X1 Y0 Y1 Z0 Z1
A B C INH
Vss VEE
X Y Z
-5V
C360 0.1
R401 1M
R402 1M
R403 1M
R405 4.7k :RN-C
R406 10k :RN-C
R407 10k :RN-C
R416 330k
C369 0.1
9V-8
IC361 (1/2) NJM062M
R421 4.3k :RN-C
R426 24k :RN-C
R427 1M
VPR. 206-9
555-9 CUE INSERT
555-10 GND
VPR. 206-7
555-7 CUE MIX INHI
1/3 AD CH1/2 PON
1/3 AD CH3/4 PON
R362 100
R365 100k
R453 100k
IC354 (1/4) TC74VHC32FS
IC354 (2/4) TC74VHC32FS
IC355 (1/4) TC74VHC86FS
R378 10k :RN-C
R379 10k :RN-C
R380 10k :RN-C
R381 10k :RN-C
PB LEVEL [CH-1]
PB LEVEL [CH-2]
PB LEVEL [CH-3]
PB LEVEL [CH-4]
RV40 10k
RV50 10k
RV60 10k
RV70 10k
R382 10k
R383 10k
R384 10k
R385 10k
IC351 (1/2) NJM2904M
IC351 (2/2) NJM2904M
C354 0.1
R363 22k :RN-C
R367 27k :RN-C
R364 22k :RN-C
R368 22k :RN-C
R359 1k :RN-C
R360 3.9k :RN-C
R361 10k :RN-C
D351 NJM431U
C353 10 10V TA-C
IC357 MC14052BF-T2
IC358 MC14052BF-T2
C361 0.1
C362 0.1
C363 0.1
C364 0.1
X0 X1 X2 X3 Y0 Y1 Y2 Y3
R404 0
R408 10k
R409 10k
R410 10k
R411 10k
R412 1M
R413 1M
R414 1M
R415 1M
C365 1.0
C366 1.0
C367 1.0
C368 1.0
R417 22k :RN-C
R418 22k :RN-C
R419 22k :RN-C
R420 22k :RN-C
IC359 (1/2) NJM062M
IC359 (2/2) NJM062M
IC360 (1/2) NJM062M
IC360 (2/2) NJM062M
C370 0.1
C371 0.1
C372 0.1
C373 0.1
R422 3.3k :RN-C
R423 3.3k :RN-C
R424 3.3k :RN-C
R425 3.3k :RN-C
VPR. 206-8
555-8 VR AD/DA
R366 100
R369 100k

5-46

ADA-44 (3/3)


R428 100
CUE MIX (X) 557-1 EQ. 911-7
R429 100
CUE MIX (Y) 557-2 EQ. 911-8
CUE MIX (G) 557-3 EQ. 911-9
553-8 SW +5V (A)
533-9 SW +5V (D)
553-10 SW -5V
R332 8.2
R333 8.2
R334 8.2
R335 8.2
R336 8.2
R337 8.2
C376 33 6.3V
C377 220 10V
C378 220 10V
5V
5V-8
-5V
553-1 SW +9V
553-2 GND
553-3 SW -9V
-9V-8
9V-8
C374 47 16V
C375 47 16V
Q361 2SC2873Y
8V-8
R437 470
C379 33 10V
C381 33 10V
R438 470
C380 33 10V
C382 33 10V
Q362 2SA1213Y
-8V-8
Q364 2SB1295-UL6-TB
8V-2
R440 10k
D357 RD6.8M
C385 33 10V
R447 4.7k
D358 RD4.7
D356 RD4.7
VPR. 208-1
559-1 AD CH1/2 PON
IC355 (2/4) TC74VHC86FS
R434 100k
1.3/3 AD CH1/2 PON
Q365 2SD1935-CT7-TB
R441 10k
C386 33 10V
-8V-2
R448 4.7k
Q366 2SB1295-UL6-TB
8V-3
R442 10k
D359 RD6.8M
C387 33 10V
R449 4.7k
D354 RD4.7
D360 RD4.7
IC355 (3/4) TC74VHC86FS
VPR. 208-2
559-2 AD CH3/4 PON
R435 100k
1.3/3 AD CH3/4 PON
Q367 2SD1935-CT7-TB
R443 10k
C388 33 10V
-8V-3
R450 4.7k
R430 100
ADA VR CH1 554-1 SST. 111-1
R431 100
ADA VR CH2 554-2 SST. 111-2
Q368 2SA1213Y
8V-4
IC310 NJM78L05UA
IN OUT GND
5V-2
R444 10k
D361 RD6.8M
C389 33 10V
C384 33 6.3V
R451 4.7k
D355 RD4.7
D362 RD4.7
IC355 (4/4) TC74VHC86FS
5V-8
VPR. 208-5
559-5 DA CH1/2/3/4 PON
R436 100k
Q369 2SD1935-CT7-TB
R445 10k
C390 33 10V
-8V-4
R452 4.7k
559-6 GND
R432 100
ADA VR CH3 554-3 SST. 111-3
553-4 N.C
553-5 N.C
R433 100
ADA VR CH4 554-4 SST. 111-4
CP. 411-6
CP. 411-7
553-6 POWER SW ON
553-7 POWER SW ON
ON
OFF
S1 POWER SW.
R439 :N.M.1608
ADA VR GND 554-5
IC361 (2/2) NJM062M
C383 0.1
-9V-8
IC354 (4/4) TC74VHC32FS

ADA-44 (3/3)

BOARD NO. 1-657-810-11
LOT NO. 812-
HDW-250_ADA-44_011_3

1
2
3
4
5

5-47

I J K L M N O P

VR-194, VR-206

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

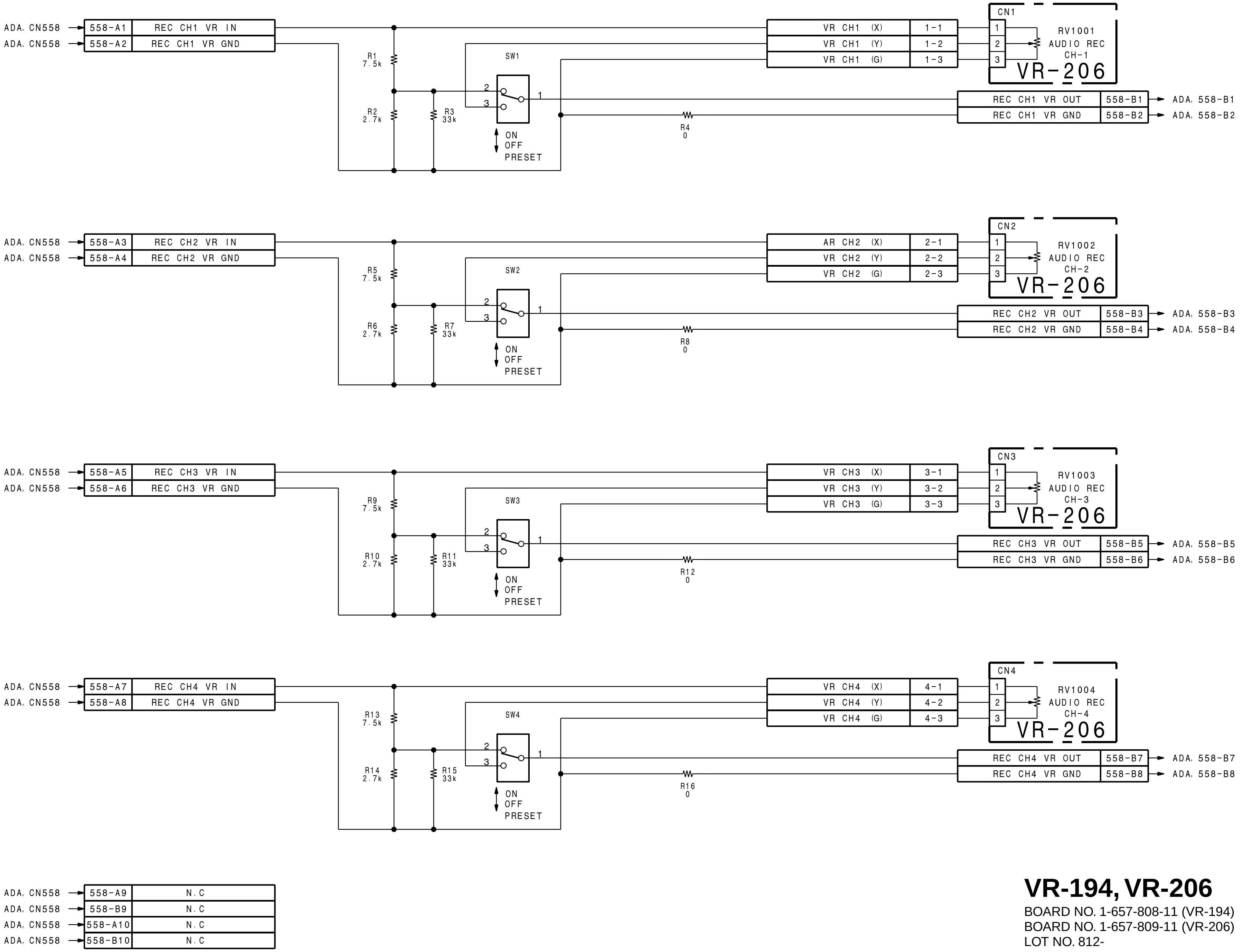
1

2

3

4

5

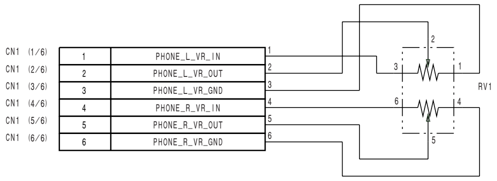

ADA. CN558
558-A1 REC CH1 VR IN
558-A2 REC CH1 VR GND
R1 7.5k
R2 2.7k
R3 33k
SW1
ON OFF PRESET
R4 0
VR CH1 (X) 1-1
VR CH1 (Y) 1-2
VR CH1 (G) 1-3
CN1
RV1001 AUDIO REC CH-1
VR-206
REC CH1 VR OUT 558-B1 ADA. 558-B1
REC CH1 VR GND 558-B2 ADA. 558-B2
558-A3 REC CH2 VR IN
558-A4 REC CH2 VR GND
R5 7.5k
R6 2.7k
R7 33k
SW2
R8 0
AR CH2 (X) 2-1
VR CH2 (Y) 2-2
VR CH2 (G) 2-3
CN2
RV1002 AUDIO REC CH-2
REC CH2 VR OUT 558-B3 ADA. 558-B3
REC CH2 VR GND 558-B4 ADA. 558-B4
558-A5 REC CH3 VR IN
558-A6 REC CH3 VR GND
R9 7.5k
R10 2.7k
R11 33k
SW3
R12 0
VR CH3 (X) 3-1
VR CH3 (Y) 3-2
VR CH3 (G) 3-3
CN3
RV1003 AUDIO REC CH-3
REC CH3 VR OUT 558-B5 ADA. 558-B5
REC CH3 VR GND 558-B6 ADA. 558-B6
558-A7 REC CH4 VR IN
558-A8 REC CH4 VR GND
R13 7.5k
R14 2.7k
R15 33k
SW4
R16 0
VR CH4 (X) 4-1
VR CH4 (Y) 4-2
VR CH4 (G) 4-3
CN4
RV1004 AUDIO REC CH-4
REC CH4 VR OUT 558-B7 ADA. 558-B7
REC CH4 VR GND 558-B8 ADA. 558-B8
558-A9 N.C
558-B9 N.C
558-A10 N.C
558-B10 N.C

VR-194, VR-206

BOARD NO. 1-657-808-11 (VR-194)
BOARD NO. 1-657-809-11 (VR-206)
LOT NO. 812-
HDW-250_VR-194_011_1

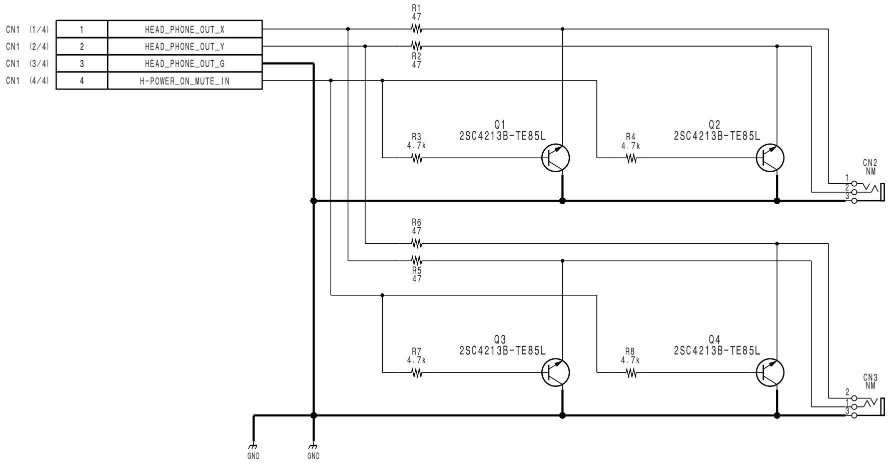
5-48

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


CN1 (1/6)
CN1 (2/6)
CN1 (3/6)
CN1 (4/6)
CN1 (5/6)
CN1 (6/6)
1 PHONE_L_VR_IN
2 PHONE_L_VR_OUT
3 PHONE_L_VR_GND
4 PHONE_R_VR_IN
5 PHONE_R_VR_OUT
6 PHONE_R_VR_GND
1
2
3
4
5
6
RV1

VR-254

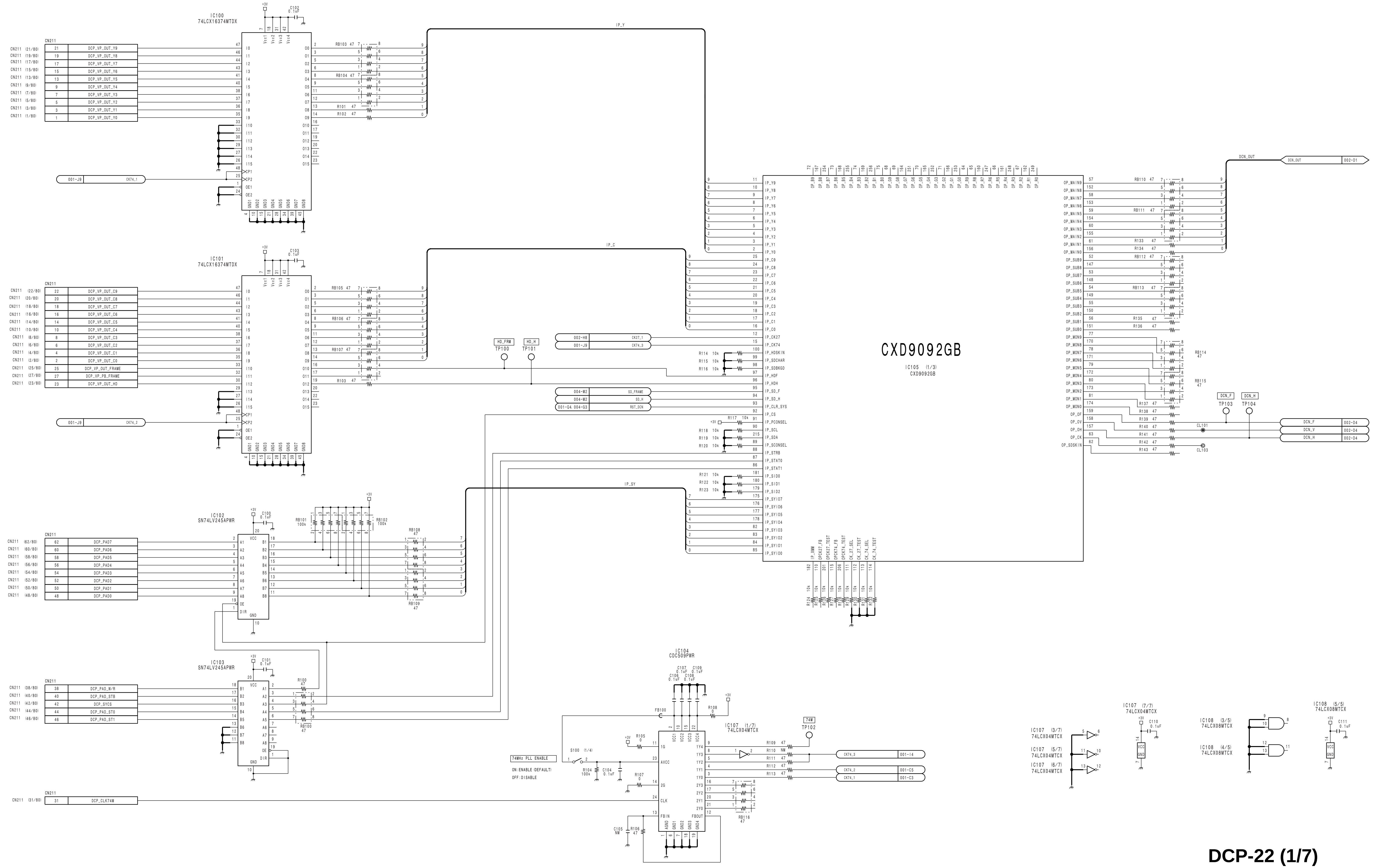
BOARD NO. 1-673-089-11
LOT NO. 812-
HDW-250_VR-254_011_1


CN1 (1/4)
CN1 (2/4)
CN1 (3/4)
CN1 (4/4)
1 HEAD_PHONE_OUT_X
2 HEAD_PHONE_OUT_Y
3 HEAD_PHONE_OUT_G
4 H-POWER_ON_MUTE_IN
R1 47
R2 47
R3 4.7k
Q1 2SC4213B-TE85L
R4 4.7k
Q2 2SC4213B-TE85L
CN2 NM
1
2
3
R6 47
R5 47
R7 4.7k
Q3 2SC4213B-TE85L
R8 4.7k
Q4 2SC4213B-TE85L
CN3 NM
2
1
3
GND
GND

DUS-173

BOARD NO. 1-673-088-11
LOT NO. 812-
HDW-250_DUS-173_011_1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC100
74LCX16374MTDX
IC101
74LCX16374MTDX
IC102
SN74LV245APWR
IC103
SN74LV245APWR
IC104
CDC509PWR
CXD9092GB
IC105 (1/3)
CXD9092GB
IC107 (1/7)
74LCX04MTCX
IC107 (3/7)
74LCX04MTCX
IC107 (5/7)
74LCX04MTCX
IC107 (6/7)
74LCX04MTCX
IC107 (7/7)
74LCX04MTCX
IC108 (3/5)
74LCX08MTCX
IC108 (4/5)
74LCX08MTCX
IC108 (5/5)
74LCX08MTCX
CN211
IP_Y
IP_C
IP_SY
DCN_OUT
HD_FRM
TP100
HD_H
TP101
DCN_F
TP103
DCN_H
TP104
74M
TP102
74MHz PLL ENABLE
ON:ENABLE(DEFAULT)
OFF:DISABLE
S100 (1/4)
1
2
3
4
5
A
B
C
D
E
F
G
H

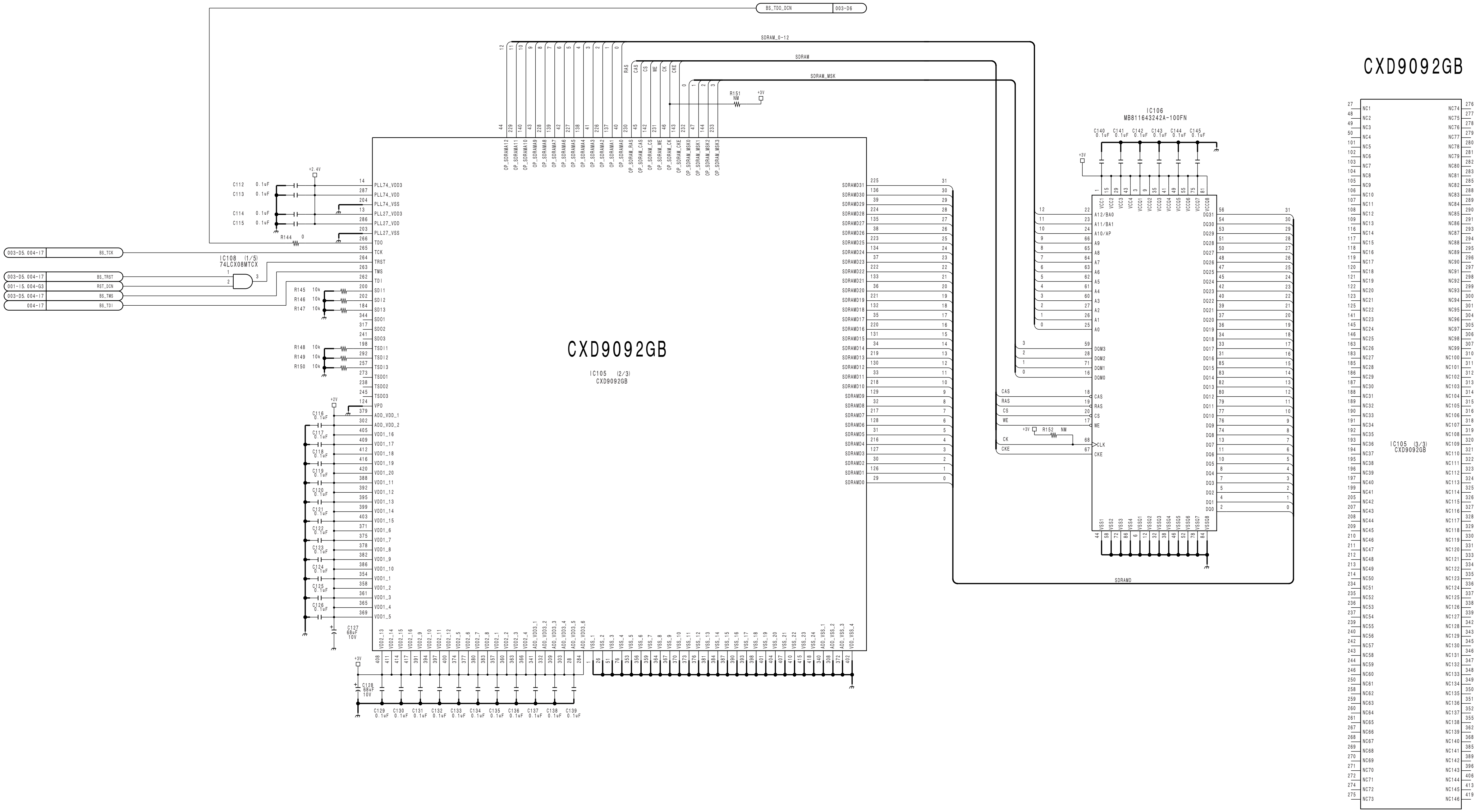
DCP-22 (1/7)

BOARD NO. 1-673-715-12
LOT NO. 903-
HDW-250_DCP-22_012_1

http://getMANUAL.com

DCP-22 (2/7)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

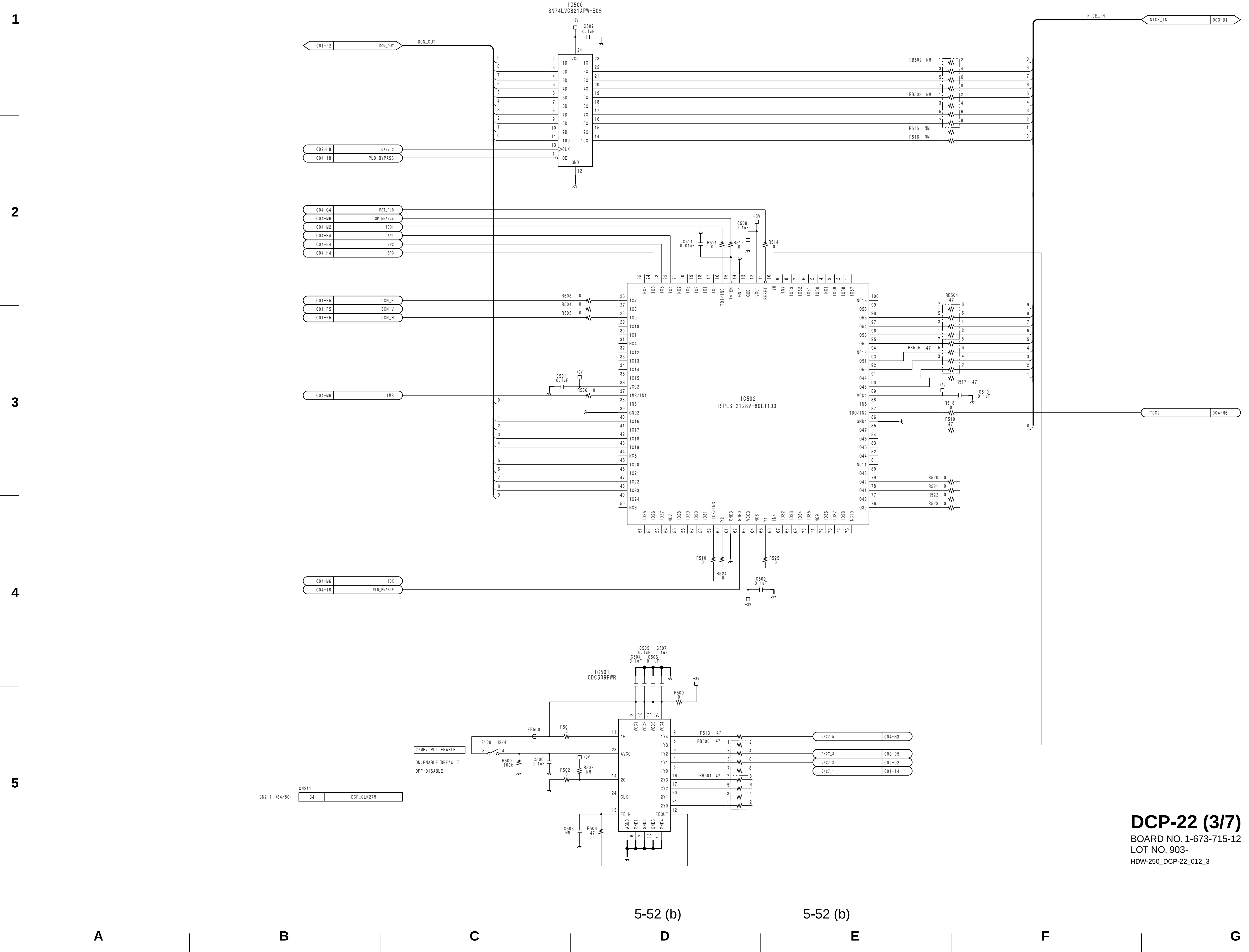

BS_TDO_DCN
003-D6
SDRAM_0-12
SDRAM
SDRAM_MSK
R151 NM
+3V
+2.4V
C112 0.1uF
C113 0.1uF
C114 0.1uF
C115 0.1uF
R144 0
003-D5.004-I7 BS_TCK
003-D5.004-I7 BS_TRST
001-I5.004-G3 RST_DCN
003-D5.004-I7 BS_TMS
004-I7 BS_TDI
IC108 (1/5)
74LCX08MTCX
R145 10k
R146 10k
R147 10k
R148 10k
R149 10k
R150 10k
PLL74_VDD3
PLL74_VDD
PLL74_VSS
PLL27_VDD3
PLL27_VDD
PLL27_VSS
TDO
TCK
TRST
TMS
TDI
SDI1
SDI2
SDI3
SDO1
SDO2
SDO3
TSDI1
TSDI2
TSDI3
TSDO1
TSDO2
TSDO3
VPD
ADD_VDD_1
ADD_VDD_2
C116 0.1uF
C117 0.1uF
C118 0.1uF
C119 0.1uF
C120 0.1uF
C121 0.1uF
C122 0.1uF
C123 0.1uF
C124 0.1uF
C125 0.1uF
C126 0.1uF
C127 68uF 10V
C128 68uF 10V
C129 0.1uF
C130 0.1uF
C131 0.1uF
C132 0.1uF
C133 0.1uF
C134 0.1uF
C135 0.1uF
C136 0.1uF
C137 0.1uF
C138 0.1uF
C139 0.1uF
CXD9092GB
IC105 (2/3)
CXD9092GB
OP_SDRAMA12
OP_SDRAM_RAS
OP_SDRAM_CAS
OP_SDRAM_CS
OP_SDRAM_WE
OP_SDRAM_CK
OP_SDRAM_CKE
OP_SDRAM_MSK0
OP_SDRAM_MSK1
OP_SDRAM_MSK2
OP_SDRAM_MSK3
SDRAMD31
SDRAMD0
IC106
MB811643242A-100FN
C140 0.1uF
C141 0.1uF
C142 0.1uF
C143 0.1uF
C144 0.1uF
C145 0.1uF
A12/BA0
A11/BA1
A10/AP
DQM3
DQM2
DQM1
DQM0
CAS
RAS
CS
WE
CLK
CKE
R152 NM
DQ31
DQ0
SDRAMD
CXD9092GB
IC105 (3/3)
CXD9092GB

DCP-22 (2/7)

BOARD NO. 1-673-715-12
LOT NO. 903-
HDW-250_DCP-22_012_2

5-51 (b)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

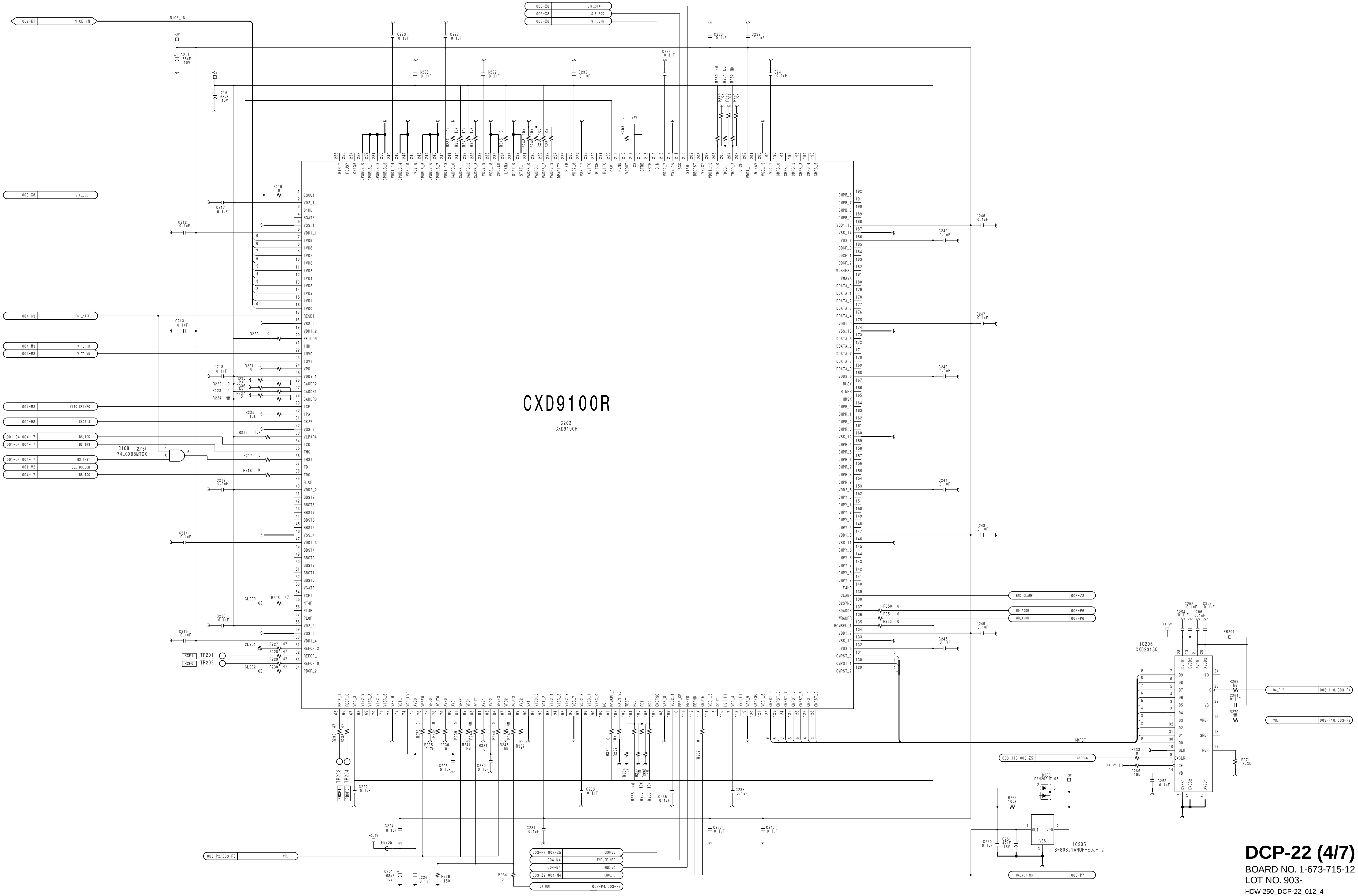


1
2
3
4
5
A
B
C
D
E
F
G
H
IC500
SN74LVC821APW-E05
C502 0.1uF
+3V
VCC
CLK
OE
GND
DCN_OUT
001-P2
002-H8 CK27_2
004-I8 PLD_BYPASS
NICE_IN
003-D1
RB502 NW
RB503 NW
R515 NW
R516 NW
004-G4 RST_PLD
004-M6 ISP_ENABLE
004-M2 TDO1
004-H4 SP1
004-H4 SP2
004-H4 SP3
C511 0.01uF
R511 0
R512 0
C508 0.1uF
R514 0
001-P5 DCN_F
001-P5 DCN_V
001-P5 DCN_H
R503 0
R504 0
R505 0
C501 0.1uF
R506 0
004-M6 TMS
IC502
ISPLSI2128V-80LT100
RB504 47
RB505 47
R517 47
C510 0.1uF
R518 0
R519 47
TDO2
004-M6
R520 0
R521 0
R522 0
R523 0
R510 0
R524 0
R525 0
C509 0.1uF
004-M6 TCK
004-I8 PLD_ENABLE
C505 0.1uF
C507 0.1uF
C504 0.1uF
C506 0.1uF
IC501
CDC509PWR
R509 0
FB500
R501 0
S100 (2/4)
27MHz PLL ENABLE
ON:ENABLE(DEFAULT)
OFF:DISABLE
R500 100k
C500 0.1uF
R502 0
R507 NM
CN211
CN211 (34/80)
34
DCP_CLK27M
C503 NM
R508 47
R513 47
RB500 47
RB501 47
CK27_5 004-H3
CK27_3 003-D5
CK27_2 002-D2
CK27_1 001-I4

DCP-22 (3/7)

BOARD NO. 1-673-715-12
LOT NO. 903-
HDW-250_DCP-22_012_3

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

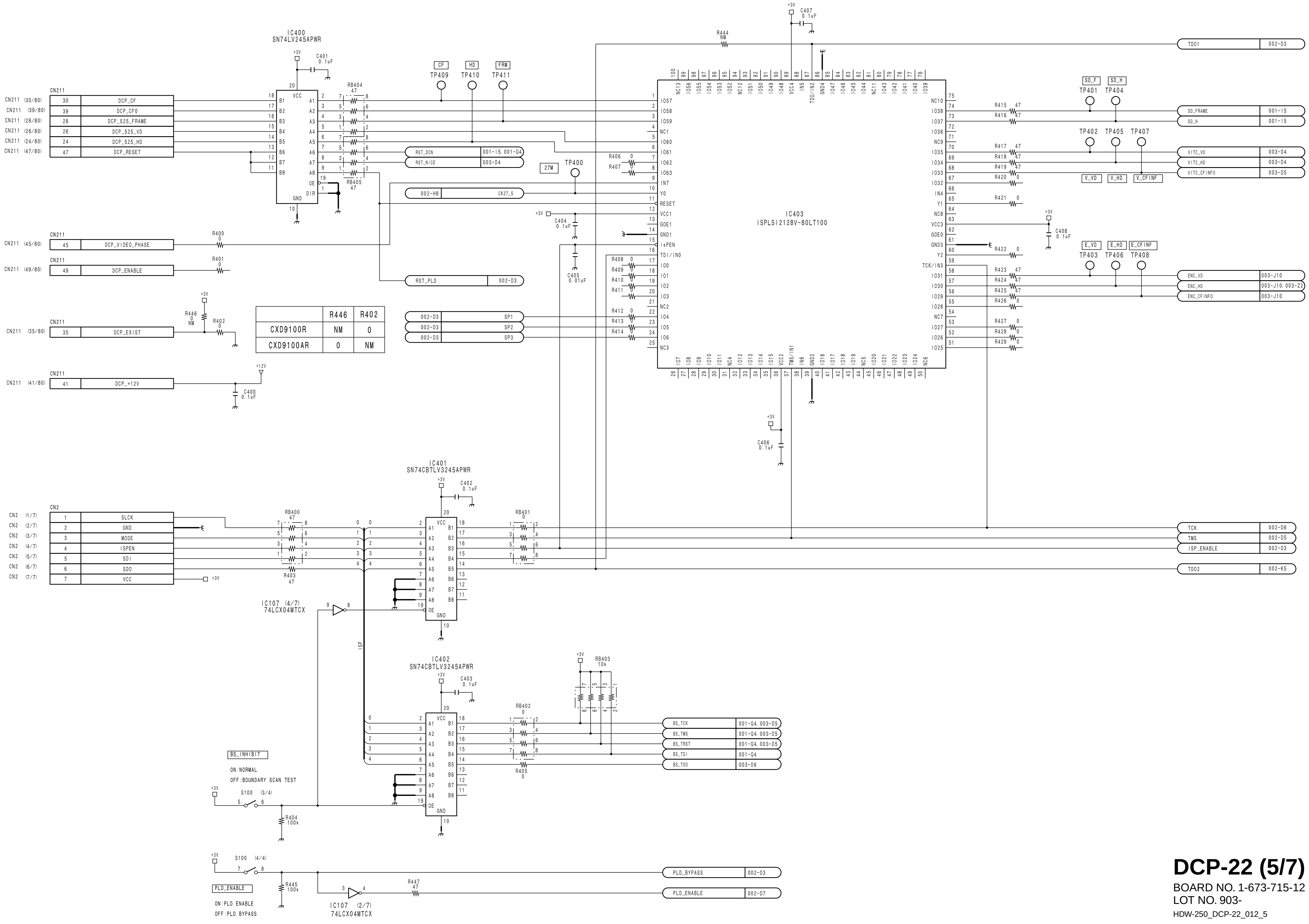

CXD9100R
IC203
CXD9100R
IC108 (2/5)
74LCX08MTCX
IC206
CXD2315Q
IC205
S-80821ANUP-EDJ-T2
D200
DAN202UT106
NICE_IN
SIF_SOUT
RST_NICE
VITC_HD
VITC_VD
VITC_CFINFO
CK27_3
BS_TCK
BS_TMS
BS_TRST
BS_TDO_DCN
BS_TDI
SIF_START
SIF_SCK
SIF_SIN
ENC_CLAMP
RD_ADDR
WR_ADDR
CMPST
CKBFSC
DA_OUT
VREF
DA_MUTING
ENC_CFINFO
ENC_VD
ENC_HD
TP201
TP202
TP203
TP204
CL200
CL201
CL202
FB201
FB205

DCP-22 (4/7)

BOARD NO. 1-673-715-12
LOT NO. 903-
HDW-250_DCP-22_012_4

DCP-22 (5/7)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC400
SN74LV245APWR
IC401
SN74CBTLV3245APWR
IC402
SN74CBTLV3245APWR
IC403
ISPLSI2128V-80LT100
IC107 (4/7)
74LCX04MTCX
IC107 (2/7)
74LCX04MTCX
CN211
DCP_CF
DCP_CF0
DCP_525_FRAME
DCP_525_VD
DCP_525_HD
DCP_RESET
DCP_VIDEO_PHASE
DCP_ENABLE
DCP_EXIST
DCP_+12V
CN2
SLCK
GND
MODE
ISPEN
SDI
SDO
VCC
RST_DCN
RST_NICE
RST_PLD
TDO1
TDO2
SD_FRAME
SD_H
VITC_VD
VITC_HD
VITC_CFINFO
ENC_VD
ENC_HD
ENC_CFINFO
TCK
TMS
ISP_ENABLE
BS_TCK
BS_TMS
BS_TRST
BS_TDI
BS_TDO
PLD_BYPASS
PLD_ENABLE
BS_INHIBIT
ON:NORMAL
OFF:BOUNDARY SCAN TEST
ON:PLD ENABLE
OFF:PLD BYPASS
S100 (3/4)
S100 (4/4)
TP400
TP401
TP402
TP403
TP404
TP405
TP406
TP407
TP408
TP409
TP410
TP411
CF
HD
FRM
27M
SD_F
SD_H
V_VD
V_HD
V_CFINF
E_VD
E_HD
E_CFINF
ISP

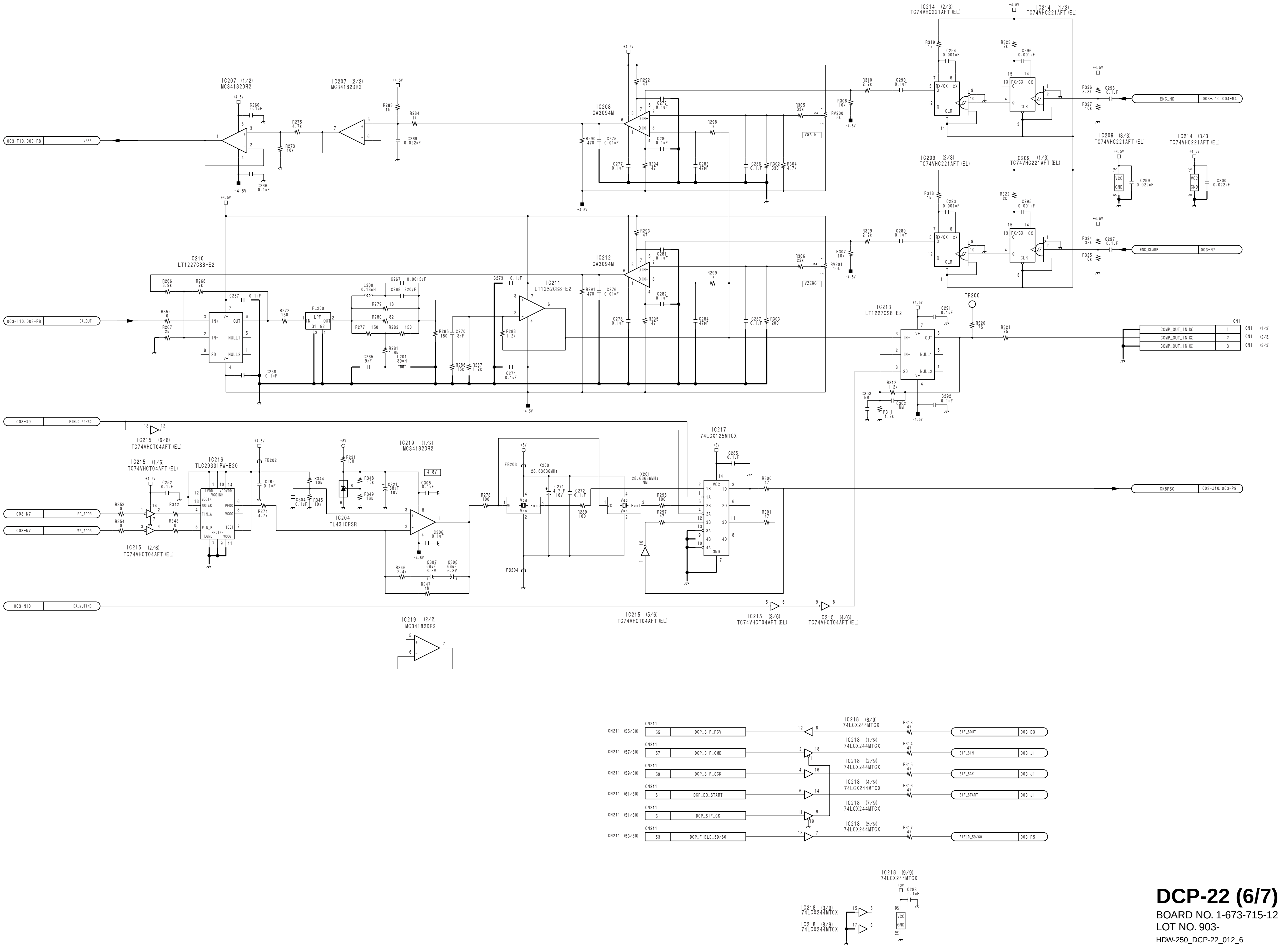
	R446	R402
CXD9100R	NM	0
CXD9100AR	0	NM

DCP-22 (5/7)

BOARD NO. 1-673-715-12
LOT NO. 903-
HDW-250_DCP-22_012_5

5-54 (b)

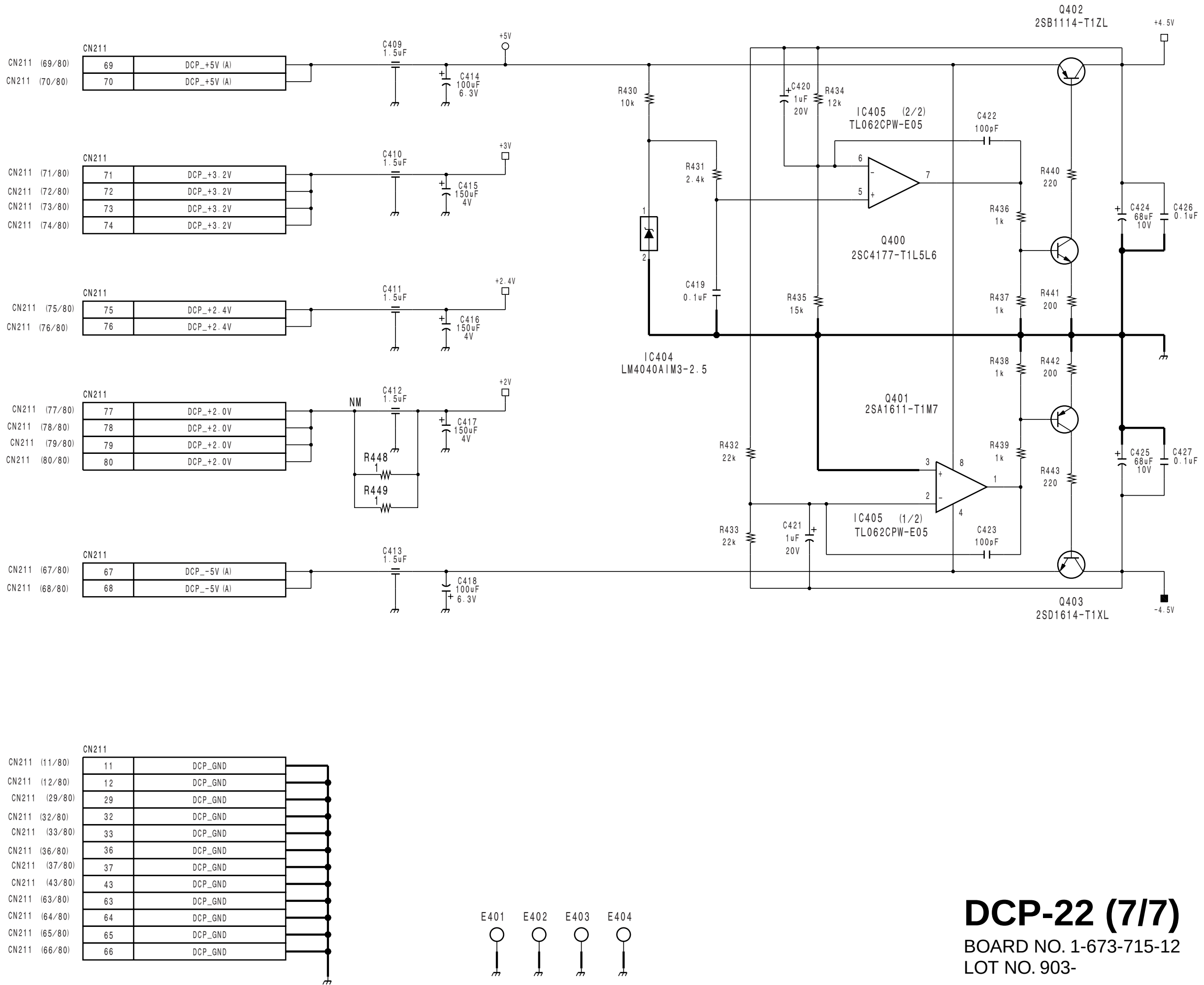
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


IC207 (1/2) MC34182DR2
IC207 (2/2) MC34182DR2
IC208 CA3094M
IC210 LT1227CS8-E2
IC211 LT1252CS8-E2
IC212 CA3094M
IC213 LT1227CS8-E2
IC214 (1/3) TC74VHC221AFT (EL)
IC214 (2/3) TC74VHC221AFT (EL)
IC214 (3/3) TC74VHC221AFT (EL)
IC209 (1/3) TC74VHC221AFT (EL)
IC209 (2/3) TC74VHC221AFT (EL)
IC209 (3/3) TC74VHC221AFT (EL)
IC215 (1/6) TC74VHCT04AFT (EL)
IC215 (2/6) TC74VHCT04AFT (EL)
IC215 (3/6) TC74VHCT04AFT (EL)
IC215 (4/6) TC74VHCT04AFT (EL)
IC215 (5/6) TC74VHCT04AFT (EL)
IC215 (6/6) TC74VHCT04AFT (EL)
IC216 TLC2933IPW-E20
IC204 TL431CPSR
IC219 (1/2) MC34182DR2
IC219 (2/2) MC34182DR2
IC217 74LCX125MTCX
IC218 74LCX244MTCX
X200 28.63636MHz
X201 28.63636MHz NM
FL200 LPF
TP200
VGAIN
VZERO
003-F10, 003-R8 VREF
003-I10, 003-R8 DA_OUT
003-X9 FIELD_59/60
003-N7 RD_ADDR
003-N7 WR_ADDR
003-N10 DA_MUTING
ENC_HD 003-J10, 004-M4
ENC_CLAMP 003-N7
COMP_OUT_IN (G) CN1 1 (1/3)
COMP_OUT_IN (B) CN1 2 (2/3)
COMP_OUT_IN (R) CN1 3 (3/3)
CKBFSC 003-J10, 003-P9
CN211 (55/80) DCP_SIF_RCV SIF_SOUT 003-D3
CN211 (57/80) DCP_SIF_CMD SIF_SIN 003-J1
CN211 (59/80) DCP_SIF_SCK SIF_SCK 003-J1
CN211 (61/80) DCP_DO_START SIF_START 003-J1
CN211 (51/80) DCP_SIF_CS
CN211 (53/80) DCP_FIELD_59/60 FIELD_59/60 003-P5
+4.5V
-4.5V
+5V
1
2
3
4
5
A
B
C
D
E
F
G
H

DCP-22 (6/7)

BOARD NO. 1-673-715-12
LOT NO. 903-
HDW-250_DCP-22_012_6

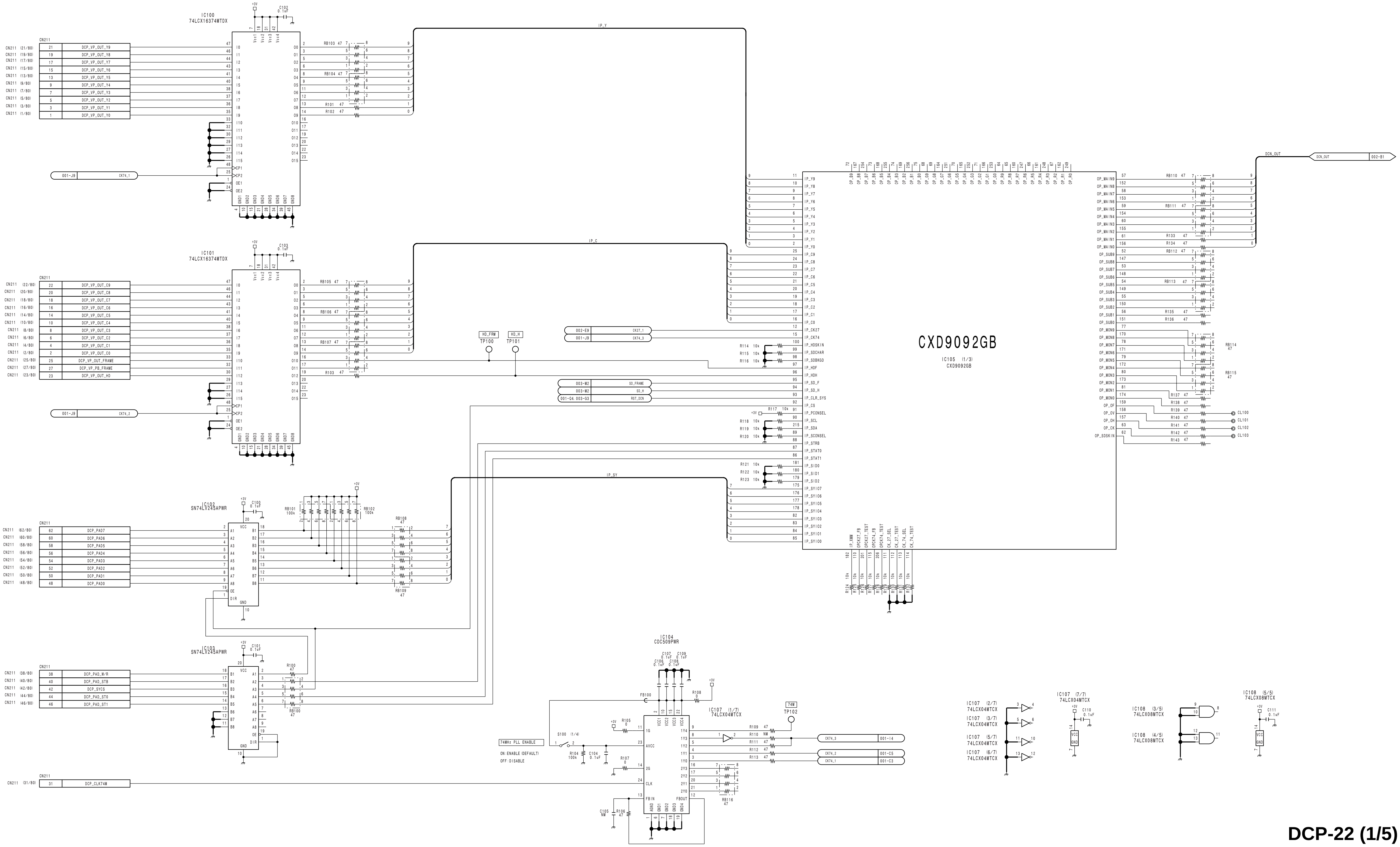
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher


CN211
CN211 (69/80) 69 DCP_+5V (A)
CN211 (70/80) 70 DCP_+5V (A)
C409 1.5uF
C414 100uF 6.3V
+5V
CN211
CN211 (71/80) 71 DCP_+3.2V
CN211 (72/80) 72 DCP_+3.2V
CN211 (73/80) 73 DCP_+3.2V
CN211 (74/80) 74 DCP_+3.2V
C410 1.5uF
C415 150uF 4V
+3V
CN211
CN211 (75/80) 75 DCP_+2.4V
CN211 (76/80) 76 DCP_+2.4V
C411 1.5uF
C416 150uF 4V
+2.4V
CN211
CN211 (77/80) 77 DCP_+2.0V
CN211 (78/80) 78 DCP_+2.0V
CN211 (79/80) 79 DCP_+2.0V
CN211 (80/80) 80 DCP_+2.0V
NM
C412 1.5uF
R448 1
R449 1
C417 150uF 4V
+2V
CN211
CN211 (67/80) 67 DCP_-5V (A)
CN211 (68/80) 68 DCP_-5V (A)
C413 1.5uF
C418 100uF 6.3V
R430 10k
R431 2.4k
C419 0.1uF
IC404 LM4040AIM3-2.5
C420 1uF 20V
R434 12k
R435 15k
IC405 (2/2) TL062CPW-E05
C422 100pF
Q400 2SC4177-T1L5L6
Q401 2SA1611-T1M7
R432 22k
R433 22k
C421 1uF 20V
IC405 (1/2) TL062CPW-E05
C423 100pF
R436 1k
R437 1k
R438 1k
R439 1k
R440 220
R441 200
R442 200
R443 220
Q402 2SB1114-T1ZL
Q403 2SD1614-T1XL
C424 68uF 10V
C426 0.1uF
C425 68uF 10V
C427 0.1uF
+4.5V
-4.5V
CN211
CN211 (11/80) 11 DCP_GND
CN211 (12/80) 12 DCP_GND
CN211 (29/80) 29 DCP_GND
CN211 (32/80) 32 DCP_GND
CN211 (33/80) 33 DCP_GND
CN211 (36/80) 36 DCP_GND
CN211 (37/80) 37 DCP_GND
CN211 (43/80) 43 DCP_GND
CN211 (63/80) 63 DCP_GND
CN211 (64/80) 64 DCP_GND
CN211 (65/80) 65 DCP_GND
CN211 (66/80) 66 DCP_GND
E401
E402
E403
E404

DCP-22 (7/7)

BOARD NO. 1-673-715-12
LOT NO. 903-
HDW-250_DCP-22_012_7

HDW-250 (J) : S/N 30001 through 30050


IC100
74LCX16374MTDX
IC101
74LCX16374MTDX
IC102
SN74LV245APWR
IC103
SN74LV245APWR
IC104
CDC509PWR
CXD9092GB
IC105 (1/3)
CXD9092GB
IC107 (1/7)
74LCX04MTCX
IC107 (2/7)
IC107 (3/7)
IC107 (5/7)
IC107 (6/7)
IC107 (7/7)
74LCX04MTCX
IC108 (3/5)
IC108 (4/5)
IC108 (5/5)
74LCX08MTCX
CN211
IP_Y
IP_C
IP_SY
DCN_OUT
HD_FRM
HD_H
TP100
TP101
TP102
74M
S100 (1/4)
74MHz PLL ENABLE
ON:ENABLE (DEFAULT)
OFF:DISABLE
CL100
CL101
CL102
CL103
001-J9
002-E9
003-M2
001-Q4 003-Q3
001-I4
001-C5
001-C3
002-B1

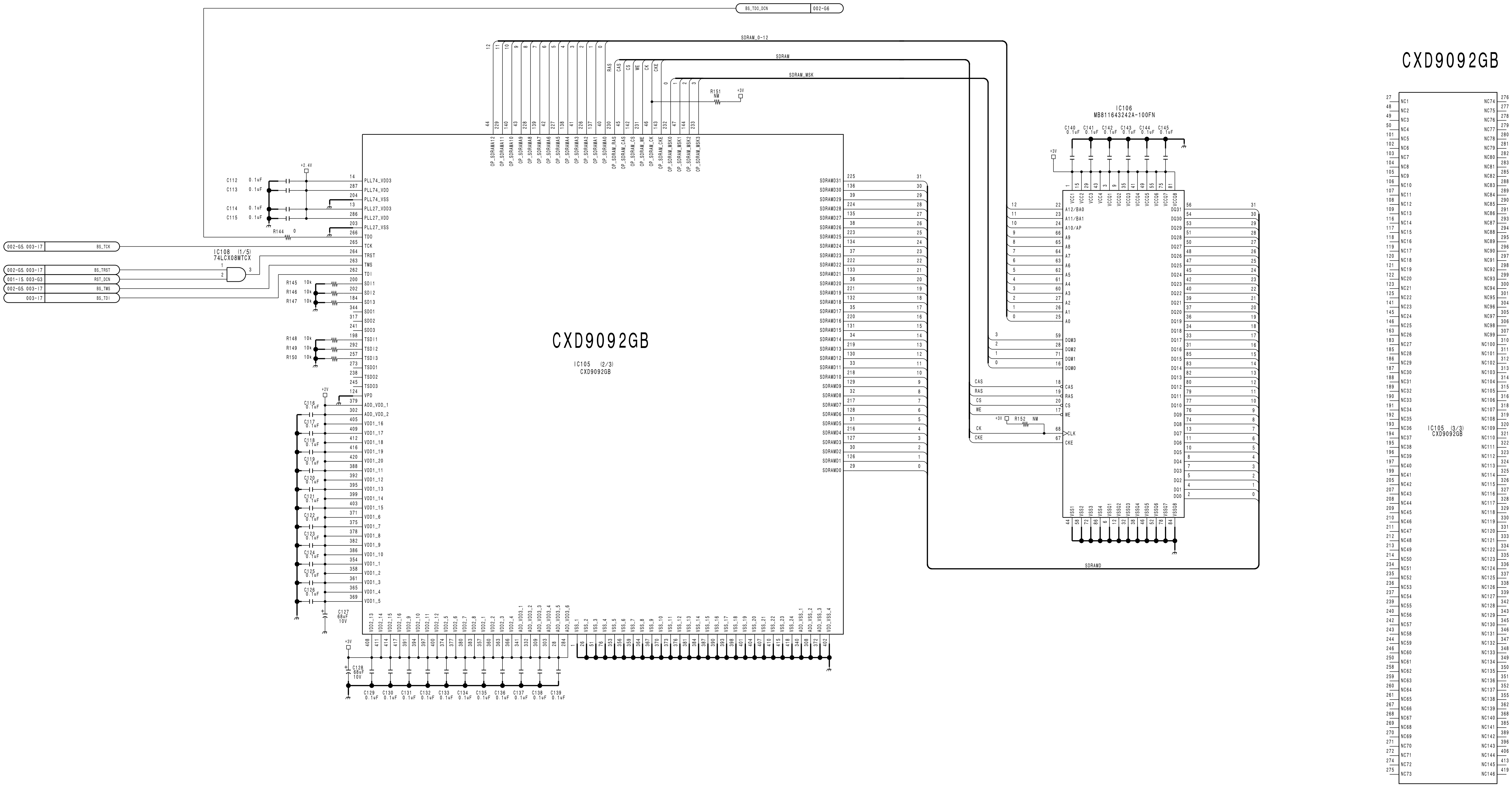
1
2
3
4
5

DCP-22 (1/5)

BOARD NO. 1-673-715-11
LOT NO. 812-902
HDW-250_DCP-22_011_1

A B C D E F G H

HDW-250 (J) : S/N 30001 through 30050

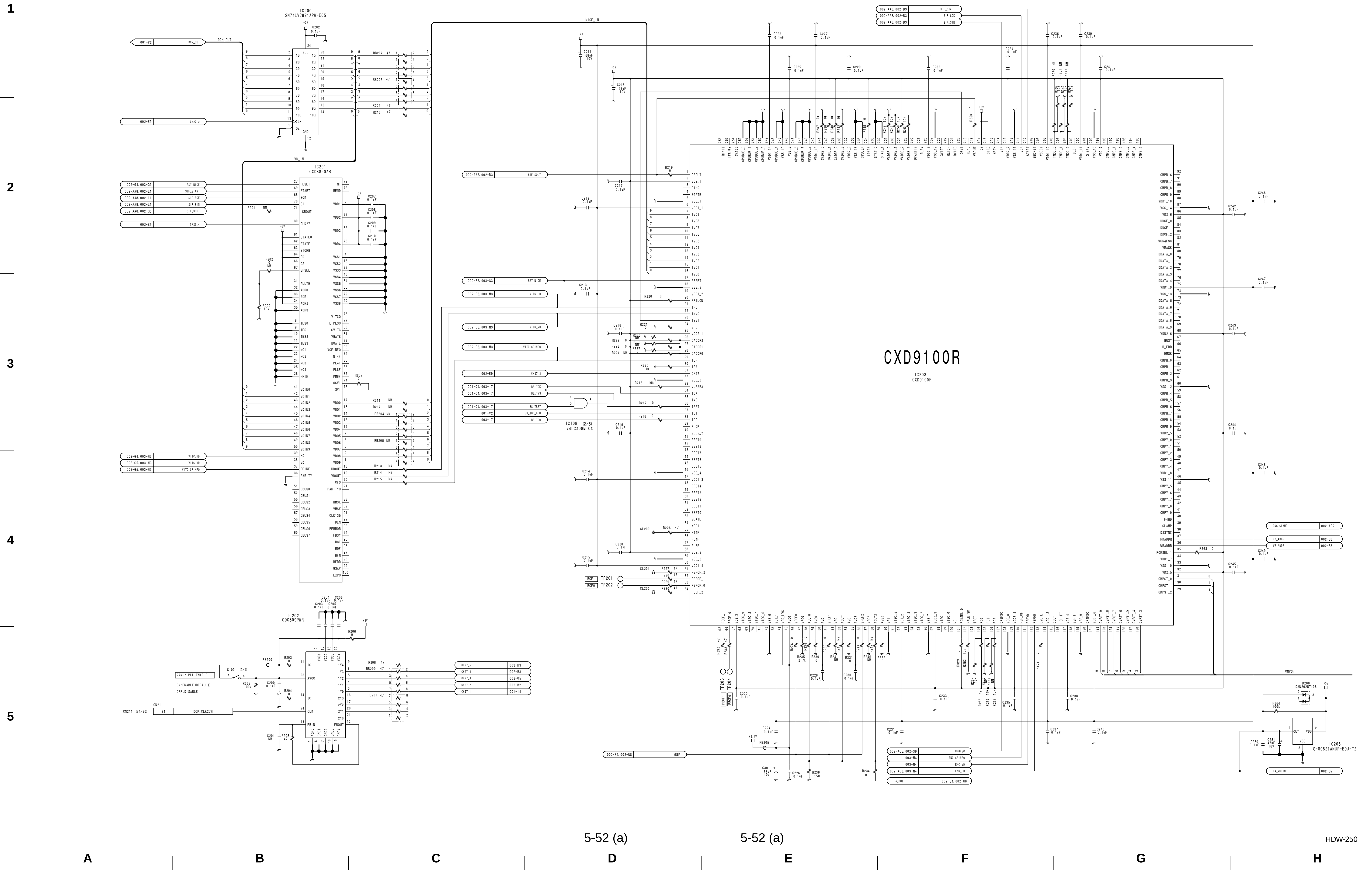

BS_TDO_DCN
002-G6
SDRAM_0-12
SDRAM
SDRAM_MSK
R151 NM
+3V
+2.4V
C112 0.1uF
C113 0.1uF
C114 0.1uF
C115 0.1uF
R144 0
002-G5,003-I7 BS_TCK
002-G5,003-I7 BS_TRST
001-I5,003-G3 RST_DCN
002-G5,003-I7 BS_TMS
003-I7 BS_TDI
IC108 (1/5)
74LCX08MTCX
R145 10k
R146 10k
R147 10k
R148 10k
R149 10k
R150 10k
CXD9092GB
IC105 (2/3)
CXD9092GB
C127 68uF 10V
C128 68uF 10V
C129 C130 C131 C132 C133 C134 C135 C136 C137 C138 C139 0.1uF
IC106
MB811643242A-100FN
C140 C141 C142 C143 C144 C145 0.1uF
R152 NM
CAS
RAS
CS
WE
CK
CKE
SDRAMD
CXD9092GB
IC105 (3/3)
CXD9092GB
1
2
3
4
5

DCP-22 (2/5)

BOARD NO. 1-673-715-11
LOT NO. 812-902
HDW-250_DCP-22_011_2

DCP-22 (3/5)

HDW-250 (J) : S/N 30001 through 30050


1
2
3
4
5
A
B
C
D
E
F
G
H
IC200
SN74LVC821APW-E05
DCN_OUT
IC201
CXD8820AR
NICE_IN
VD_IN
CXD9100R
IC203
CXD9100R
IC108 (2/5)
74LCX08MTCX
IC202
CDC509PWR
27MHz PLL ENABLE
ON:ENABLE (DEFAULT)
OFF:DISABLE
S100 (2/4)
CN211 (34/80)
CN211
DCP_CLK27M
TP201
TP202
TP203
TP204
CMPST
D200
DAN202UTT06
IC205
S-80821ANUP-EDJ-T2
VREF
SH_MUTING

5-52 (a)

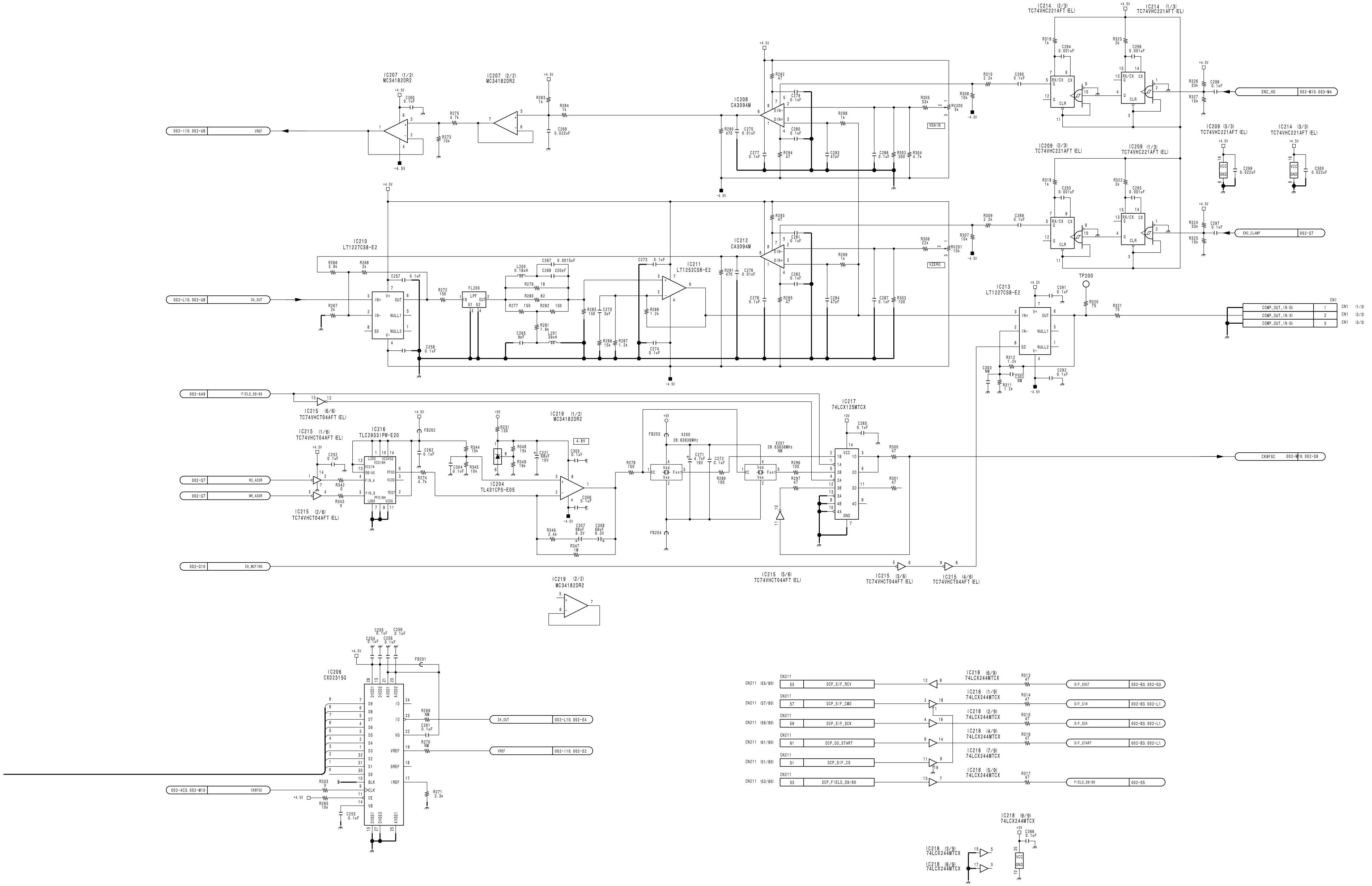
1

2

3

4

5

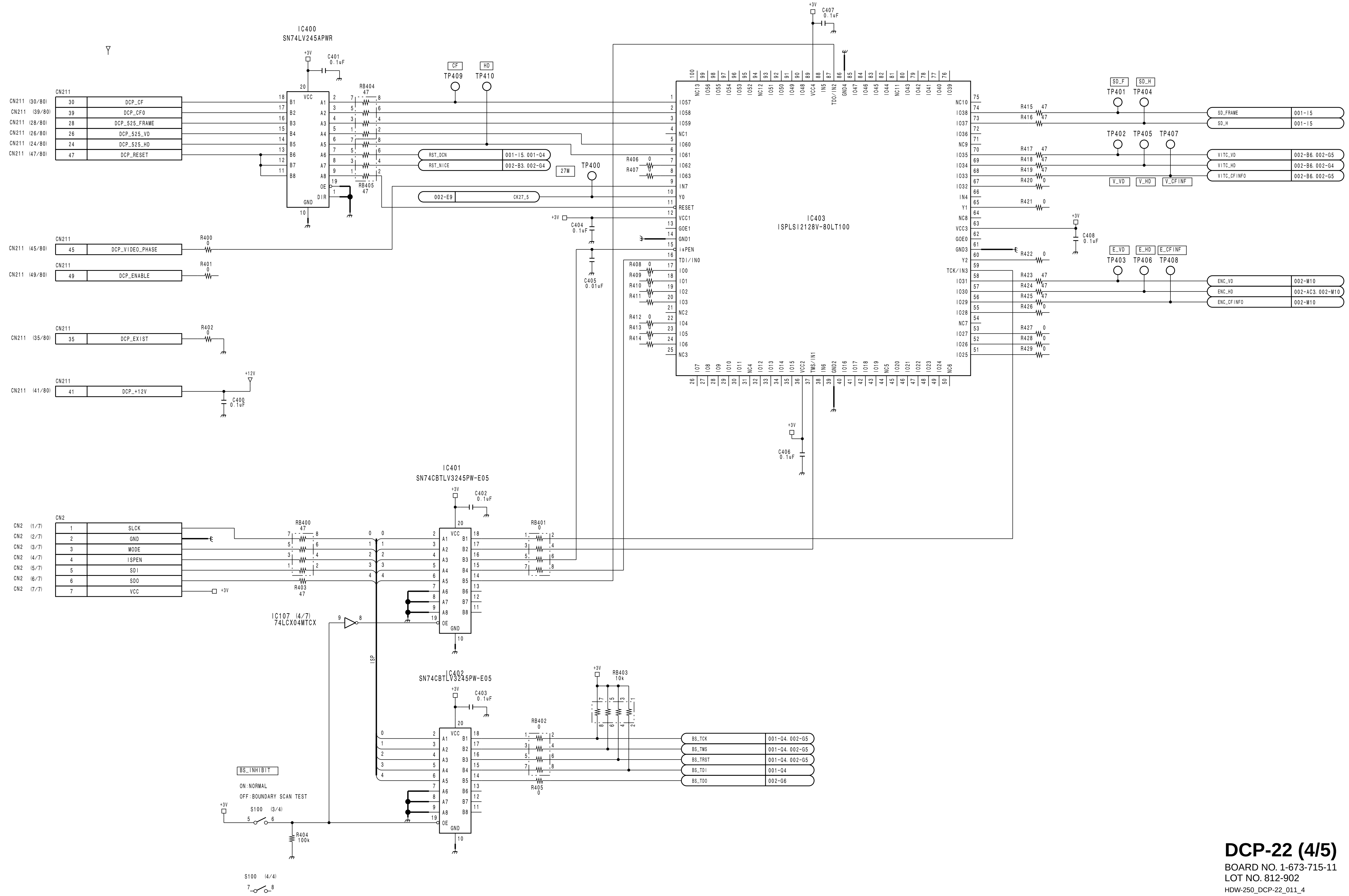

IC207 (1/2) MC34182DR2
IC207 (2/2) MC34182DR2
IC208 CA3094M
IC212 CA3094M
IC210 LT1227CS8-E2
IC211 LT1252CS8-E2
IC213 LT1227CS8-E2
IC214 (2/3) TC74VHC221AFT (EL)
IC214 (1/3) TC74VHC221AFT (EL)
IC214 (3/3) TC74VHC221AFT (EL)
IC209 (2/3) TC74VHC221AFT (EL)
IC209 (1/3) TC74VHC221AFT (EL)
IC209 (3/3) TC74VHC221AFT (EL)
IC215 (6/6) TC74VHCT04AFT (EL)
IC215 (1/6) TC74VHCT04AFT (EL)
IC215 (2/6) TC74VHCT04AFT (EL)
IC215 (5/6) TC74VHCT04AFT (EL)
IC215 (3/6) TC74VHCT04AFT (EL)
IC215 (4/6) TC74VHCT04AFT (EL)
IC216 TLC2933IPW-E20
IC204 TL431CPS-E05
IC219 (1/2) MC34182DR2
IC219 (2/2) MC34182DR2
IC217 74LCX125MTCX
IC206 CXD2315Q
IC218 (6/9) 74LCX244MTCX
IC218 (1/9) 74LCX244MTCX
IC218 (2/9) 74LCX244MTCX
IC218 (4/9) 74LCX244MTCX
IC218 (7/9) 74LCX244MTCX
IC218 (5/9) 74LCX244MTCX
IC218 (9/9) 74LCX244MTCX
IC218 (3/9) 74LCX244MTCX
IC218 (8/9) 74LCX244MTCX
X200 28.63636MHz
X201 28.63636MHz
FL200 LPF
TP200
CN1
COMP_OUT_IN (G)
COMP_OUT_IN (B)
COMP_OUT_IN (R)
ENC_HD
ENC_CLAMP
CK8FSC
VREF
DA_OUT
FIELD_59/60
RD_ADDR
WR_ADDR
DA_MUTING
VGAIN
VZERO
CN211
DCP_SIF_RCV
DCP_SIF_CMD
DCP_SIF_SCK
DCP_DO_START
DCP_SIF_CS
DCP_FIELD_59/60
SIF_SOUT
SIF_SIN
SIF_SCK
SIF_START
+4.5V
-4.5V
+5V
+3V

DCP-22 (3/5)

BOARD NO. 1-673-715-11
LOT NO. 812-902
HDW-250_DCP-22_011_3

I J K L M N O P

HDW-250 (J) : S/N 30001 through 30050


IC400
SN74LV245APWR
C401 0.1uF
RB404 47
RB405 47
CN211
CN211 (30/80) 30 DCP_CF
CN211 (39/80) 39 DCP_CFO
CN211 (28/80) 28 DCP_525_FRAME
CN211 (26/80) 26 DCP_525_VD
CN211 (24/80) 24 DCP_525_HD
CN211 (47/80) 47 DCP_RESET
CN211 (45/80) 45 DCP_VIDEO_PHASE
CN211 (49/80) 49 DCP_ENABLE
CN211 (35/80) 35 DCP_EXIST
CN211 (41/80) 41 DCP_+12V
R400 0
R401 0
R402 0
C400 0.1uF
+12V
+3V
CF
HD
TP409
TP410
RST_DCN 001-I5, 001-Q4
RST_NICE 002-B3, 002-G4
002-E9 CK27_5
27M
TP400
R406 0
R407 0
C404 0.1uF
C405 0.01uF
C407 0.1uF
R408 0
R409 0
R410 0
R411 0
R412 0
R413 0
R414 0
IC403
ISPLSI2128V-80LT100
RESET
VCC1
GOE1
GND1
ispEN
TDI/IN0
TCK/IN3
TMS/IN1
TDO/IN2
C406 0.1uF
C408 0.1uF
SD_F
SD_H
TP401
TP404
R415 47
R416 47
SD_FRAME 001-I5
SD_H 001-I5
TP402
TP405
TP407
R417 47
R418 47
R419 47
R420 0
R421 0
R422 0
VITC_VD 002-B6, 002-G5
VITC_HD 002-B6, 002-G4
VITC_CFINFO 002-B6, 002-G5
V_VD
V_HD
V_CFINF
E_VD
E_HD
E_CFINF
TP403
TP406
TP408
R423 47
R424 47
R425 47
R426 0
R427 0
R428 0
R429 0
ENC_VD 002-M10
ENC_HD 002-AC3, 002-M10
ENC_CFINFO 002-M10
IC401
SN74CBTLV3245PW-E05
C402 0.1uF
CN2
CN2 (1/7) 1 SLCK
CN2 (2/7) 2 GND
CN2 (3/7) 3 MODE
CN2 (4/7) 4 ISPEN
CN2 (5/7) 5 SDI
CN2 (6/7) 6 SDO
CN2 (7/7) 7 VCC
RB400 47
R403 47
RB401 0
IC107 (4/7)
74LCX04MTCX
ISP
IC402
SN74CBTLV3245PW-E05
C403 0.1uF
RB402 0
R405 0
RB403 10k
BS_TCK 001-Q4, 002-G5
BS_TMS 001-Q4, 002-G5
BS_TRST 001-Q4, 002-G5
BS_TDI 001-Q4
BS_TDO 002-G6
BS_INHIBIT
ON:NORMAL
OFF:BOUNDARY SCAN TEST
S100 (3/4)
R404 100k
S100 (4/4)
1
2
3
4
5

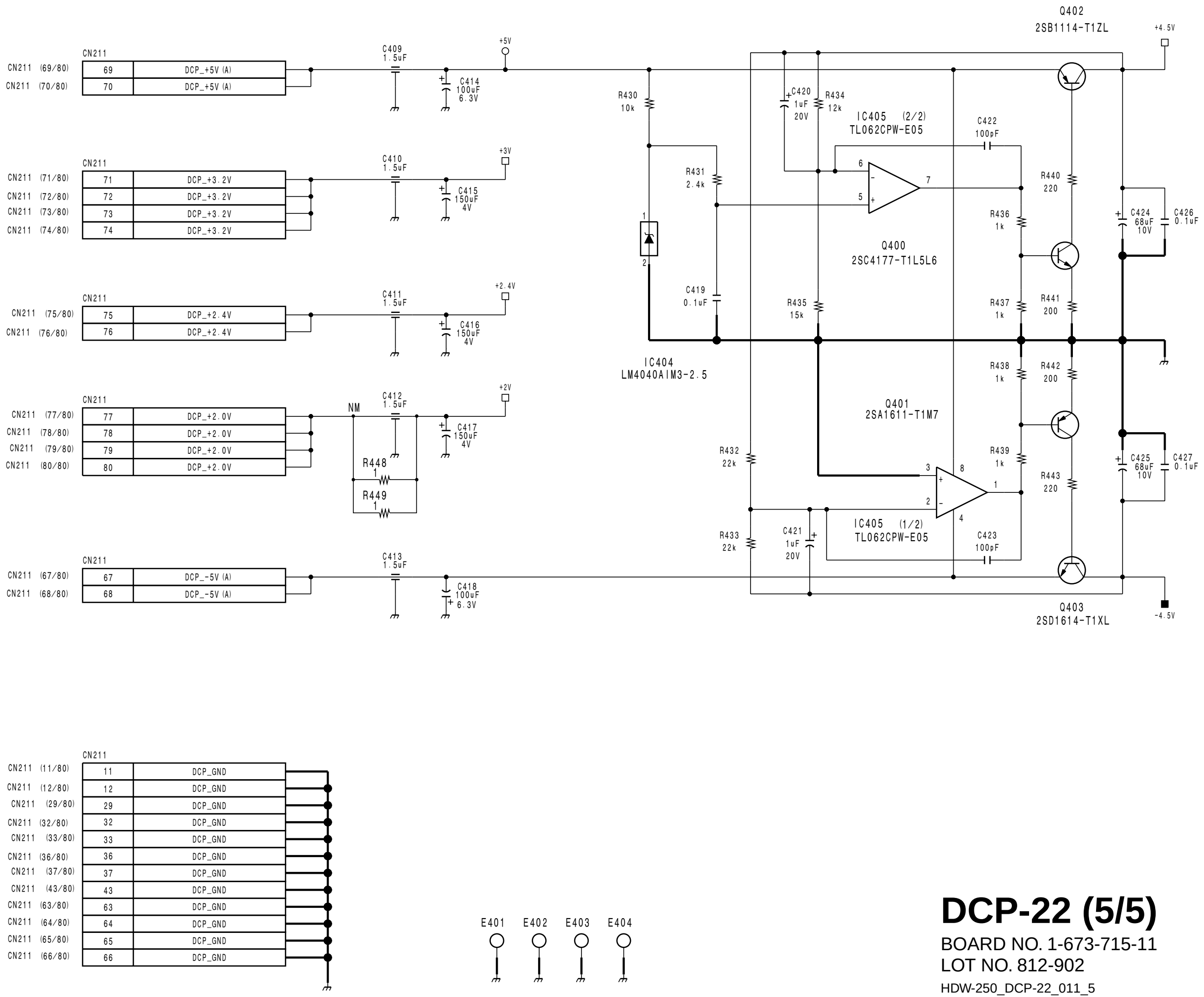
DCP-22 (4/5)

BOARD NO. 1-673-715-11
LOT NO. 812-902
HDW-250_DCP-22_011_4

A B C D E F G H

DCP-22 (5/5)

HDW-250 (J) : S/N 30001 through 30050


CN211
CN211 (69/80) 69 DCP_+5V (A)
CN211 (70/80) 70 DCP_+5V (A)
CN211 (71/80) 71 DCP_+3.2V
CN211 (72/80) 72 DCP_+3.2V
CN211 (73/80) 73 DCP_+3.2V
CN211 (74/80) 74 DCP_+3.2V
CN211 (75/80) 75 DCP_+2.4V
CN211 (76/80) 76 DCP_+2.4V
CN211 (77/80) 77 DCP_+2.0V
CN211 (78/80) 78 DCP_+2.0V
CN211 (79/80) 79 DCP_+2.0V
CN211 (80/80) 80 DCP_+2.0V
CN211 (67/80) 67 DCP_-5V (A)
CN211 (68/80) 68 DCP_-5V (A)
C409 1.5uF
C410 1.5uF
C411 1.5uF
C412 1.5uF
C413 1.5uF
C414 100uF 6.3V
C415 150uF 4V
C416 150uF 4V
C417 150uF 4V
C418 100uF 6.3V
+5V
+3V
+2.4V
+2V
NM
R448 1
R449 1
R430 10k
R431 2.4k
C419 0.1uF
IC404 LM4040AIM3-2.5
C420 1uF 20V
R434 12k
R435 15k
R432 22k
R433 22k
C421 1uF 20V
IC405 (2/2) TL062CPW-E05
IC405 (1/2) TL062CPW-E05
C422 100pF
C423 100pF
Q400 2SC4177-T1L5L6
Q401 2SA1611-T1M7
Q402 2SB1114-T1ZL
Q403 2SD1614-T1XL
R436 1k
R437 1k
R438 1k
R439 1k
R440 220
R441 200
R442 200
R443 220
C424 68uF 10V
C425 68uF 10V
C426 0.1uF
C427 0.1uF
+4.5V
-4.5V
CN211 (11/80) 11 DCP_GND
CN211 (12/80) 12 DCP_GND
CN211 (29/80) 29 DCP_GND
CN211 (32/80) 32 DCP_GND
CN211 (33/80) 33 DCP_GND
CN211 (36/80) 36 DCP_GND
CN211 (37/80) 37 DCP_GND
CN211 (43/80) 43 DCP_GND
CN211 (63/80) 63 DCP_GND
CN211 (64/80) 64 DCP_GND
CN211 (65/80) 65 DCP_GND
CN211 (66/80) 66 DCP_GND
E401 E402 E403 E404

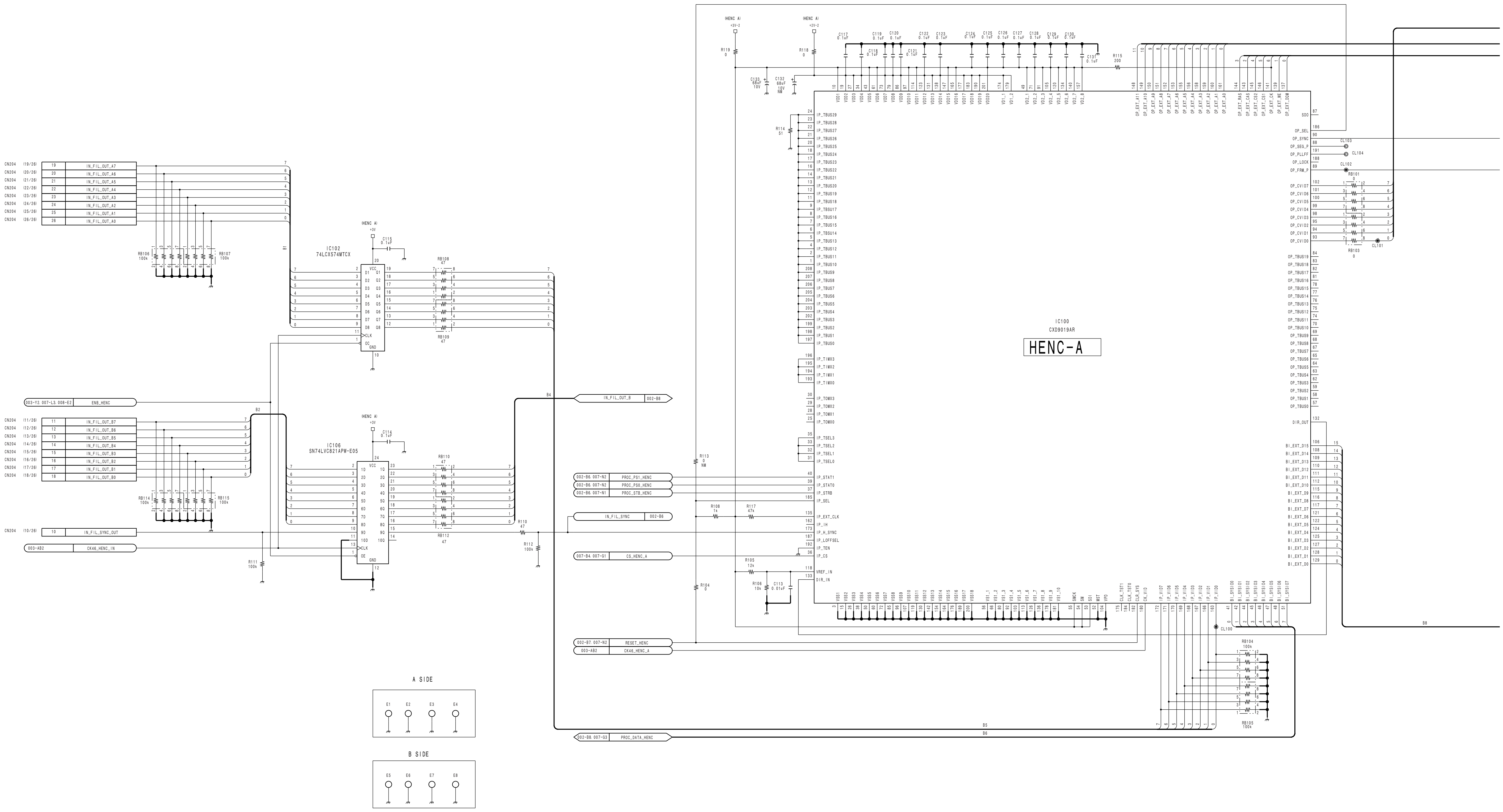
DCP-22 (5/5)

BOARD NO. 1-673-715-11
LOT NO. 812-902
HDW-250_DCP-22_011_5

5-55 (a)

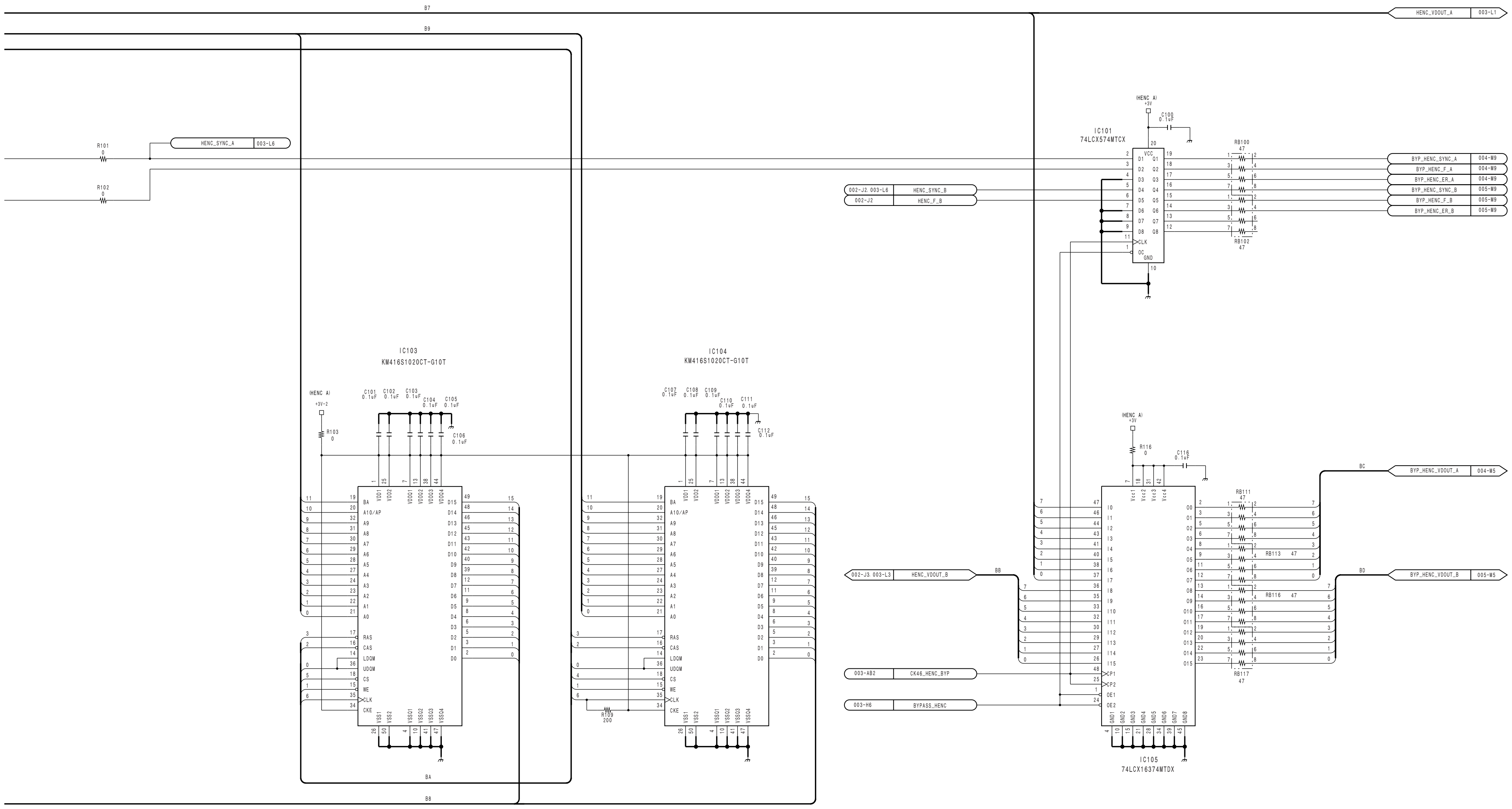
DPR-125 (1/8)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
2
3
4
5
IC100
CXD9019AR
HENC-A
IC102
74LCX574MTCX
IC106
SN74LVC821APW-E05
CN204
IN_FIL_OUT_A7
IN_FIL_OUT_A6
IN_FIL_OUT_A5
IN_FIL_OUT_A4
IN_FIL_OUT_A3
IN_FIL_OUT_A2
IN_FIL_OUT_A1
IN_FIL_OUT_A0
IN_FIL_OUT_B7
IN_FIL_OUT_B6
IN_FIL_OUT_B5
IN_FIL_OUT_B4
IN_FIL_OUT_B3
IN_FIL_OUT_B2
IN_FIL_OUT_B1
IN_FIL_OUT_B0
IN_FIL_SYNC_OUT
CK46_HENC_IN
ENB_HENC
IN_FIL_OUT_B
IN_FIL_SYNC
PROC_PS1_HENC
PROC_PS0_HENC
PROC_STB_HENC
CS_HENC_A
RESET_HENC
CK46_HENC_A
PROC_DATA_HENC
RB106
RB107
RB108
RB109
RB110
RB112
RB114
RB115
RB101
RB103
RB104
RB105
C115
C114
R110
R111
R112
R113
R114
R115
R116
R117
R118
R119
R104
R105
R106
C113
C117
C119
C120
C122
C123
C124
C125
C126
C127
C128
C129
C130
C131
C132
C133
CL101
CL102
CL103
CL104
CL150
IP_TBUS29 – IP_TBUS0
IP_TIMX3 – IP_TIMX0
IP_TOMX3 – IP_TOMX0
IP_TSEL3 – IP_TSEL0
IP_STAT1
IP_STAT0
IP_STRB
IP_SEL
IP_EXT_CLK
IP_IH
IP_H_SYNC
IP_LOFFSEL
IP_TEN
IP_CS
VREF_IN
DIR_IN
OP_EXT_A11 – OP_EXT_A0
OP_EXT_RAS
OP_EXT_CAS
OP_EXT_CS
OP_EXT_OE
OP_EXT_WE
OP_EXT_DQM
SDO
OP_SEL
OP_SYNC
OP_SEG_F
OP_PLLFF
OP_LOCK
OP_FRM_F
OP_CVIO7 – OP_CVIO0
OP_TBUS19 – OP_TBUS0
DIR_OUT
BI_EXT_D15 – BI_EXT_D0
BI_SYSIO0 – BI_SYSIO7
IP_VIO7 – IP_VIO0
CLK_TST1
CLK_TST0
CLK_SYS
CK_VIO
XRST
A SIDE
E1
E2
E3
E4
B SIDE
E5
E6
E7
E8
B1
B2
B4
B5
B6
B8
A
B
C
D
E
F
G
H

5-58

DPR-125 (1/8)


B7
B9
BA
B8
BB
BC
BD
HENC_VDOUT_A
003-L1
R101
0
R102
0
HENC_SYNC_A
003-L6
IC101
74LCX574MTCX
(HENC A)
+3V
C100
0.1uF
VCC
GND
CLK
OC
RB100
47
RB102
47
BYP_HENC_SYNC_A
004-M9
BYP_HENC_F_A
004-M9
BYP_HENC_ER_A
004-M9
BYP_HENC_SYNC_B
005-M9
BYP_HENC_F_B
005-M9
BYP_HENC_ER_B
005-M9
002-J2, 003-L6
HENC_SYNC_B
002-J2
HENC_F_B
IC103
KM416S1020CT-G10T
IC104
KM416S1020CT-G10T
(HENC A)
+3V-2
R103
0
C101 0.1uF
C102 0.1uF
C103 0.1uF
C104 0.1uF
C105 0.1uF
C106 0.1uF
C107 0.1uF
C108 0.1uF
C109 0.1uF
C110 0.1uF
C111 0.1uF
C112 0.1uF
R109
200
BA
A10/AP
RAS
CAS
LDQM
UDQM
CS
WE
CLK
CKE
(HENC A)
+3V
R116
0
C116
0.1uF
IC105
74LCX16374MTDX
RB111
47
RB113 47
RB116 47
RB117
47
002-J3, 003-L3
HENC_VDOUT_B
BYP_HENC_VDOUT_A
004-M5
BYP_HENC_VDOUT_B
005-M5
003-AB2
CK46_HENC_BYP
003-H6
BYPASS_HENC
CP1
CP2
OE1
OE2

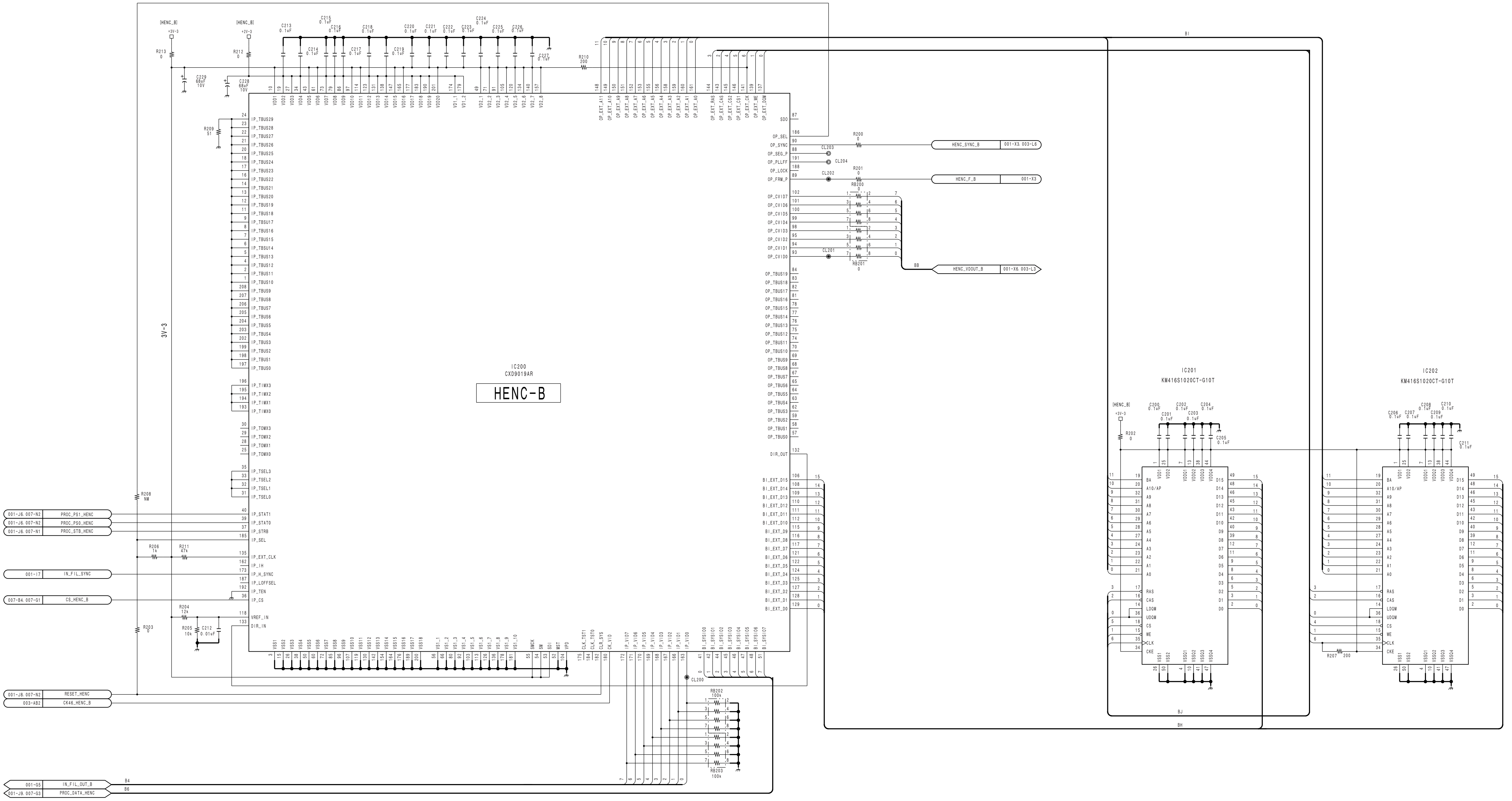
DPR-125 (1/8)

BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_1

5-59

DPR-125 (2/8)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

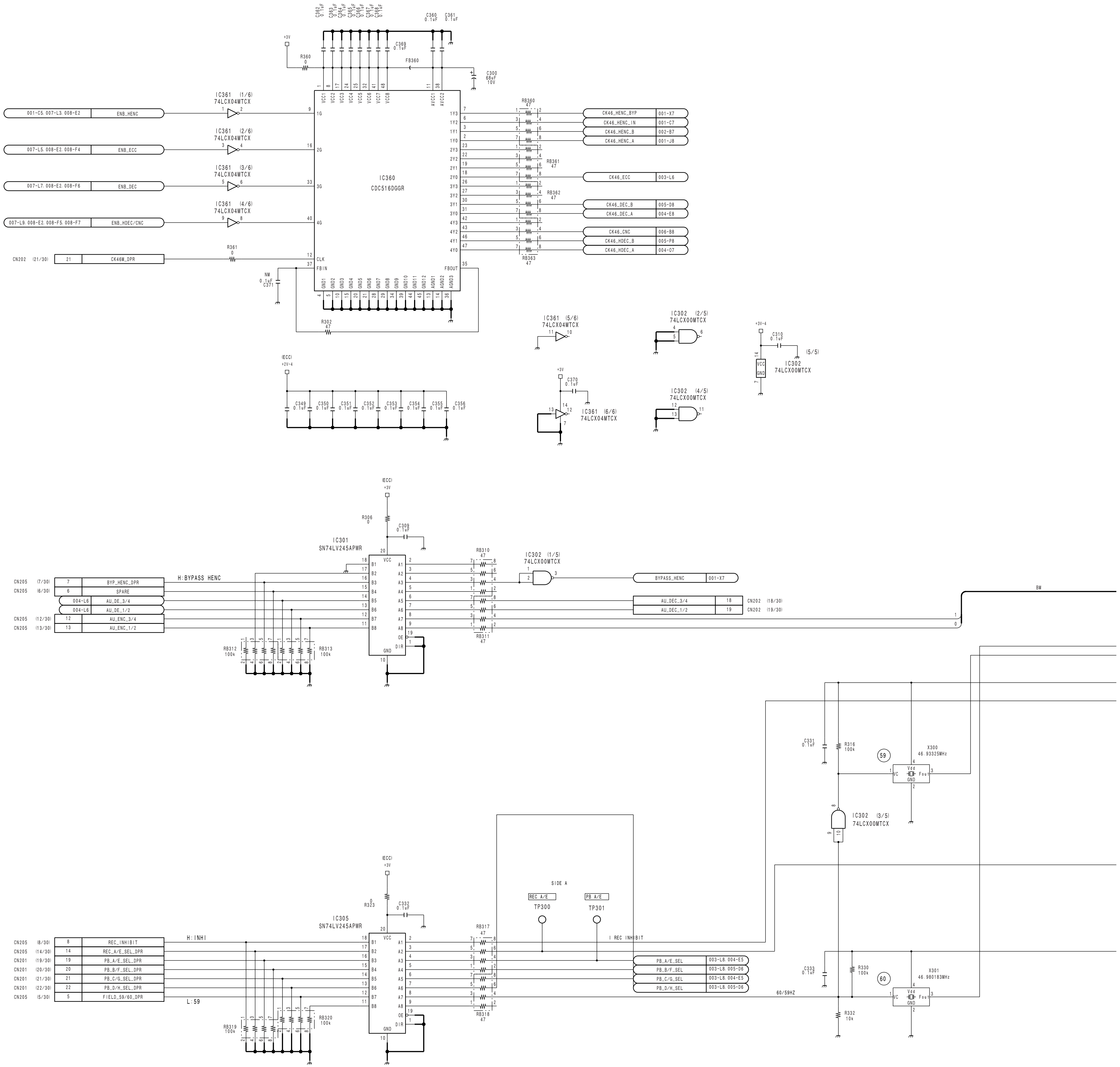

IC200
CXD9019AR
HENC-B
IC201
KM416S1020CT-G10T
IC202
KM416S1020CT-G10T
001-J6.007-N2 PROC_PS1_HENC
001-J6.007-N2 PROC_PS0_HENC
001-J6.007-N1 PROC_STB_HENC
001-I7 IN_FIL_SYNC
007-B4.007-G1 CS_HENC_B
001-J8.007-N2 RESET_HENC
003-AB2 CK46_HENC_B
001-G5 IN_FIL_OUT_B
001-J9.007-G3 PROC_DATA_HENC
HENC_SYNC_B 001-X3.003-L6
HENC_F_B 001-X3
HENC_VDOUT_B 001-X6.003-L6
3V-3
RB202 100k
RB203 100k
RB200 0
RB201 0
CL200
CL201
CL202
CL203
CL204
BI
BJ
BH
B4
B6
B8
1
2
3
4
5
A
B
C
D
E
F
G
H

DPR-125 (2/8)
BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_2

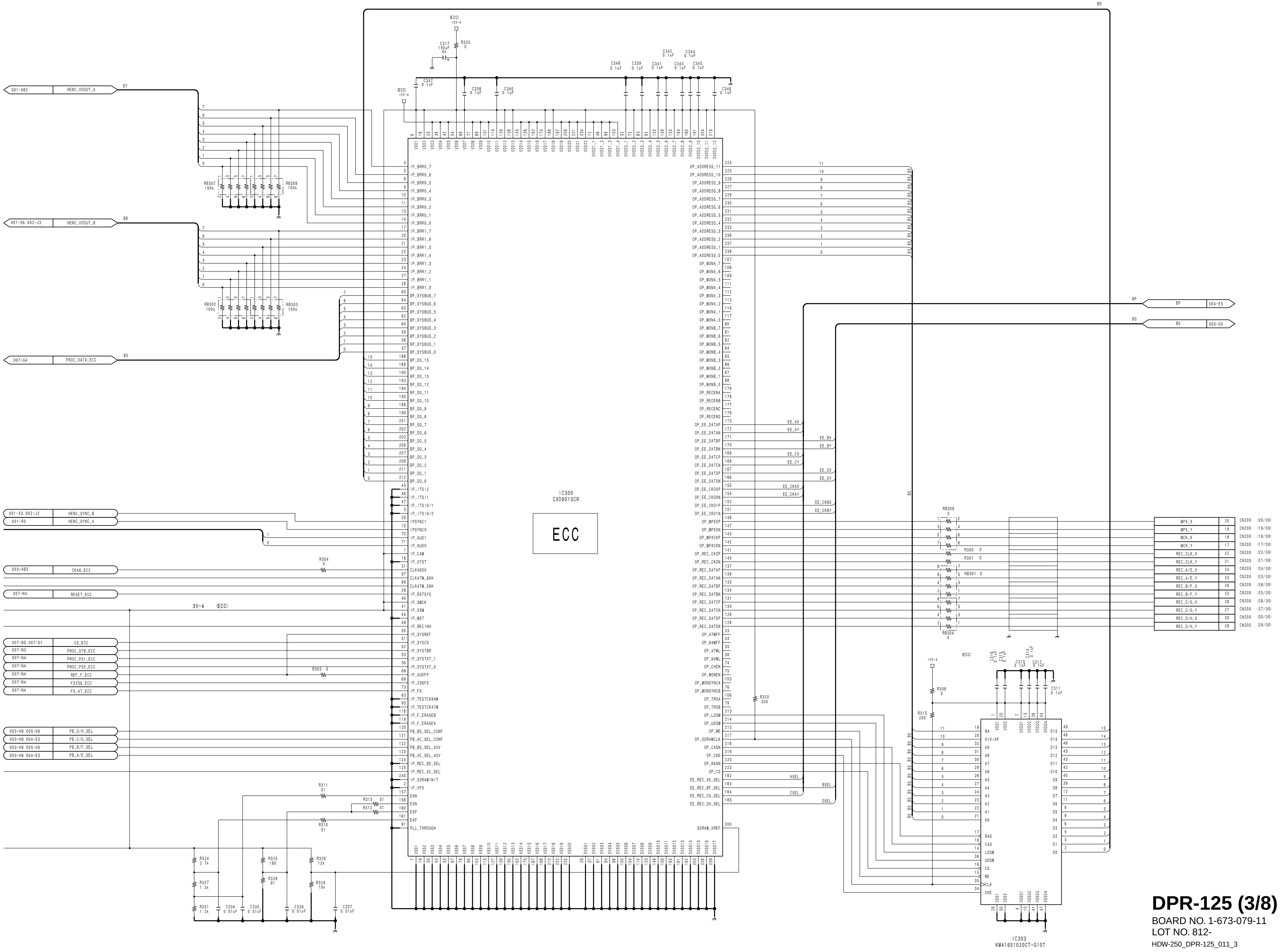
5-61

DPR-125 (3/8)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC360
CDC516DGGR
IC361 (1/6) 74LCX04MTCX
IC361 (2/6) 74LCX04MTCX
IC361 (3/6) 74LCX04MTCX
IC361 (4/6) 74LCX04MTCX
IC361 (5/6) 74LCX04MTCX
IC361 (6/6) 74LCX04MTCX
IC302 (1/5) 74LCX00MTCX
IC302 (2/5) 74LCX00MTCX
IC302 (3/5) 74LCX00MTCX
IC302 (4/5) 74LCX00MTCX
IC302 (5/5) 74LCX00MTCX
IC301
SN74LV245APWR
IC305
SN74LV245APWR
ENB_HENC
ENB_ECC
ENB_DEC
ENB_HDEC/CNC
CK46M_DPR
CK46_HENC_BYP
CK46_HENC_IN
CK46_HENC_B
CK46_HENC_A
CK46_ECC
CK46_DEC_B
CK46_DEC_A
CK46_CNC
CK46_HDEC_B
CK46_HDEC_A
H:BYPASS HENC
BYP_HENC_DPR
SPARE
AU_DE_3/4
AU_DE_1/2
AU_ENC_3/4
AU_ENC_1/2
BYPASS_HENC
AU_DEC_3/4
AU_DEC_1/2
H:INHI
L:59
REC_INHIBIT
REC_A/E_SEL_DPR
PB_A/E_SEL_DPR
PB_B/F_SEL_DPR
PB_C/G_SEL_DPR
PB_D/H_SEL_DPR
FIELD_59/60_DPR
PB_A/E_SEL
PB_B/F_SEL
PB_C/G_SEL
PB_D/H_SEL
SIDE A
REC A/E
PB A/E
TP300
TP301
I REC INHIBIT
60/59HZ
X300 46.93325MHz
X301 46.980183MHz
59
60
R360
R361
R302
R306
R323
R316 100k
R330 100k
R332 10k
FB360
C300 68uF 10V
RB360
RB361
RB362
RB363
RB310
RB311
RB312 100k
RB313 100k
RB317
RB318
RB319 100k
RB320 100k
CN202
CN205
CN201
+3V
(ECC) +3V
BM

5-62


IC300
CXD9015CR
ECC
IC303
KM416S1020CT-G10T
001-AB2 HENC_VDOUT_A
001-X6, 002-J3 HENC_VDOUT_B
007-G4 PROC_DATA_ECC
001-X3, 002-J2 HENC_SYNC_B
001-R3 HENC_SYNC_A
003-AB3 CK46_ECC
007-N4 RESET_ECC
3V-4 (ECC)
007-B5, 007-G1 CS_ECC
007-N3 PROC_STB_ECC
007-N4 PROC_PS1_ECC
007-N4 PROC_PS0_ECC
007-N4 REF_F_ECC
007-N4 FS256_ECC
007-N4 FS_47_ECC
003-H9, 005-D6 PB_D/H_SEL
003-H9, 004-E5 PB_C/G_SEL
003-H9, 005-D6 PB_B/F_SEL
003-H9, 004-E5 PB_A/E_SEL
BP 004-E5
BQ 005-D5
MPX_X
MPX_Y
MCK_X
MCK_Y
REC_CLK_X
REC_CLK_Y
REC_A/E_X
REC_A/E_Y
REC_B/F_X
REC_B/F_Y
REC_C/G_X
REC_C/G_Y
REC_D/H_X
REC_D/H_Y
CN205
RB302 100k
RB303 100k
RB307 100k
RB308 100k
RB306 0
RB304 0
R300 0
R301 0
R304 0
R305 0
R308 0
R311 51
R312 51
R313 51
R310 51
R315 200
R320 200
R324 2.7k
R325 180
R326 12k
R327 1.2k
R328 91
R329 10k
R331 1.2k
R333 0
C317 150uF 4V
C334 0.01uF
C335 0.01uF
C336 0.01uF
C337 0.01uF
C311 0.1uF

DPR-125 (3/8)
BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_3

DPR-125 (4/8)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

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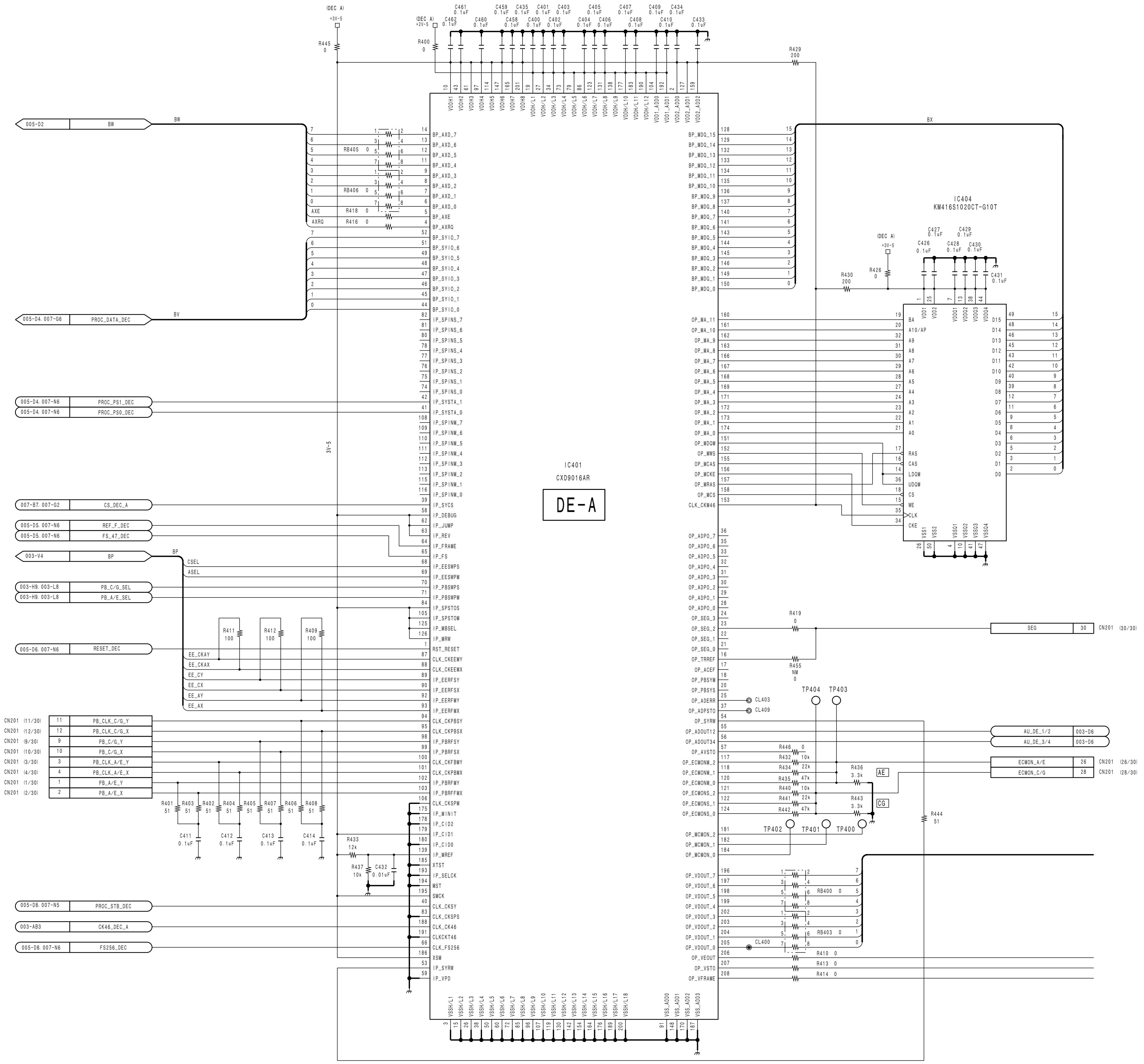
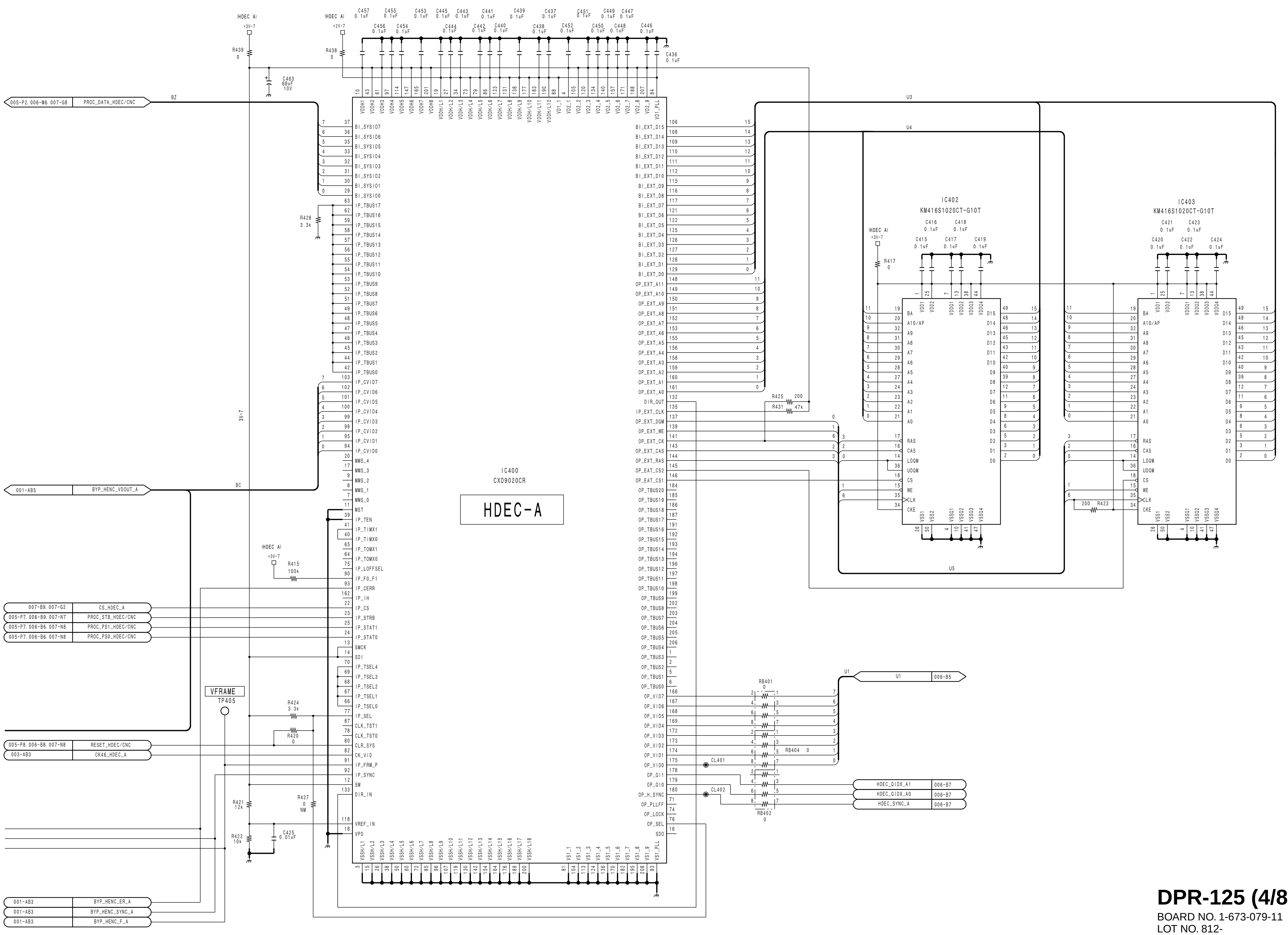

IC401
CXD9016AR
DE-A
IC404
KM416S1020CT-G10T
005-D2 BW
005-D4. 007-G6 PROC_DATA_DEC
005-D4. 007-N6 PROC_PS1_DEC
005-D4. 007-N6 PROC_PS0_DEC
007-B7. 007-G2 CS_DEC_A
005-D5. 007-N6 REF_F_DEC
005-D5. 007-N6 FS_47_DEC
003-V4 BP
003-H9. 003-L8 PB_C/G_SEL
003-H9. 003-L8 PB_A/E_SEL
005-D6. 007-N6 RESET_DEC
CN201 (11/30) PB_CLK_C/G_Y
CN201 (12/30) PB_CLK_C/G_X
CN201 (9/30) PB_C/G_Y
CN201 (10/30) PB_C/G_X
CN201 (3/30) PB_CLK_A/E_Y
CN201 (4/30) PB_CLK_A/E_X
CN201 (1/30) PB_A/E_Y
CN201 (2/30) PB_A/E_X
005-D8. 007-N5 PROC_STB_DEC
003-AB3 CK46_DEC_A
005-D8. 007-N6 FS256_DEC
SEG 30 CN201 (30/30)
AU_DE_1/2 003-D6
AU_DE_3/4 003-D6
ECMON_A/E 26 CN201 (26/30)
ECMON_C/G 28 CN201 (28/30)
BX
BV
TP404
TP403
TP402
TP401
TP400
AE
CG
CL403
CL409
CL400
RB405
RB406
RB400
RB403
(DEC A) +3V-5

5-64

A B C D E F G H


IC400
CXD9020CR
HDEC-A
IC402
KM416S1020CT-G10T
IC403
KM416S1020CT-G10T
(HDEC A)
+3V-7
R439 0
R438 0
C463 68uF 10V
R428 3.3k
R415 100k
R417 0
R424 3.3k
R420 0
R421 12k
R422 10k
R427 0 NM
C425 0.01uF
R425 200
R431 47k
R423 200
RB401 0
RB402 0
RB404 0
CL401
CL402
VFRAME
TP405
U1
U3
U4
U5
BZ
BC
005-P2, 006-M6, 007-G8
PROC_DATA_HDEC/CNC
001-AB5
BYP_HENC_VDOUT_A
007-B9, 007-G2
CS_HDEC_A
005-P7, 006-B9, 007-N7
PROC_STB_HDEC/CNC
005-P7, 006-B6, 007-N8
PROC_PS1_HDEC/CNC
005-P7, 006-B6, 007-N8
PROC_PS0_HDEC/CNC
005-P8, 006-B8, 007-N8
RESET_HDEC/CNC
003-AB3
CK46_HDEC_A
001-AB3
BYP_HENC_ER_A
001-AB3
BYP_HENC_SYNC_A
001-AB3
BYP_HENC_F_A
006-B5
HDEC_OIDX_A1
006-B7
HDEC_OIDX_A0
006-B7
HDEC_SYNC_A
006-B7
BI_SYSIO7
BI_SYSIO0
IP_TBUS17
IP_TBUS0
IP_CVID7
IP_CVID0
BI_EXT_D15
BI_EXT_D0
OP_EXT_A11
OP_EXT_A0
DIR_OUT
IP_EXT_CLK
OP_EXT_DQM
OP_EXT_WE
OP_EXT_CK
OP_EXT_CAS
OP_EXT_RAS
OP_EXT_CS2
OP_EXT_CS1
OP_TBUS20
OP_TBUS0
OP_VID7
OP_VID0
OP_QI1
OP_QI0
OP_H_SYNC
OP_PLLFF
OP_LOCK
OP_SEL
SDO
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I
J
K
L
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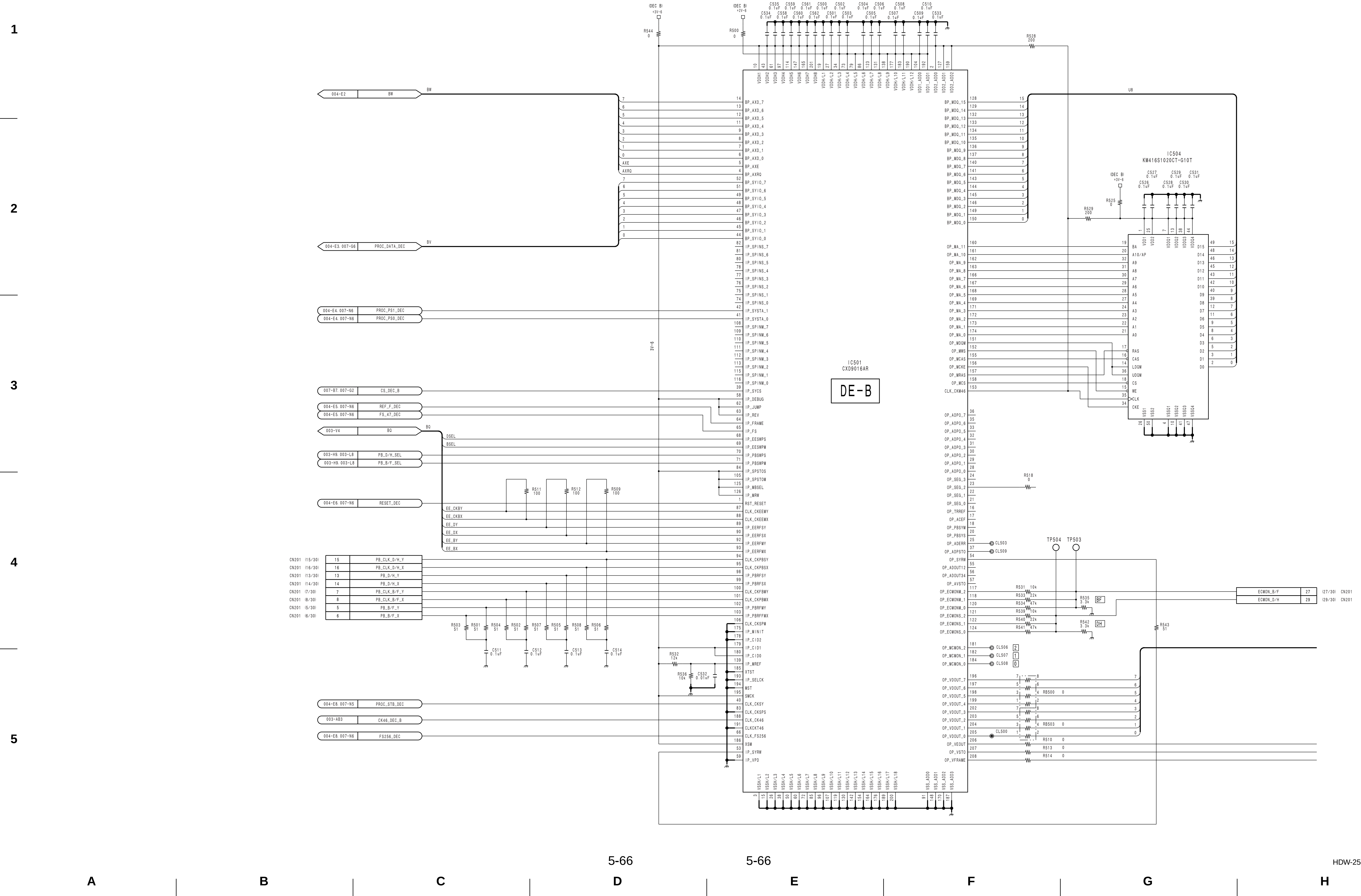
DPR-125 (4/8)

BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_4

DPR-125 (5/8)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC501
CXD9016AR
DE-B
IC504
KM416S1020CT-G10T
004-E2 BW
004-E3, 007-G6 PROC_DATA_DEC
004-E4, 007-N6 PROC_PS1_DEC
004-E4, 007-N6 PROC_PS0_DEC
007-B7, 007-G2 CS_DEC_B
004-E5, 007-N6 REF_F_DEC
004-E5, 007-N6 FS_47_DEC
003-V4 BQ
003-H9, 003-L8 PB_D/H_SEL
003-H9, 003-L8 PB_B/F_SEL
004-E6, 007-N6 RESET_DEC
CN201 (15/30) 15 PB_CLK_D/H_Y
CN201 (16/30) 16 PB_CLK_D/H_X
CN201 (13/30) 13 PB_D/H_Y
CN201 (14/30) 14 PB_D/H_X
CN201 (7/30) 7 PB_CLK_B/F_Y
CN201 (8/30) 8 PB_CLK_B/F_X
CN201 (5/30) 5 PB_B/F_Y
CN201 (6/30) 6 PB_B/F_X
004-E8, 007-N5 PROC_STB_DEC
003-AB3 CK46_DEC_B
004-E8, 007-N6 FS256_DEC
ECMON_B/F 27 (27/30) CN201
ECMON_D/H 29 (29/30) CN201
TP504
TP503
(DEC B) +3V-6
(DEC B) +2V-6
R544 0
R500 0
R528 200
R529 200
R525 0
R518 0
R511 100
R512 100
R509 100
R532 12k
R536 10k
C532 0.01uF
R543 51
RB500 0
RB503 0
R510 0
R513 0
R514 0
CL500
CL503
CL509
CL506
CL507
CL508
BF
DH
1
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A
B
C
D
E
F
G
H

5-66

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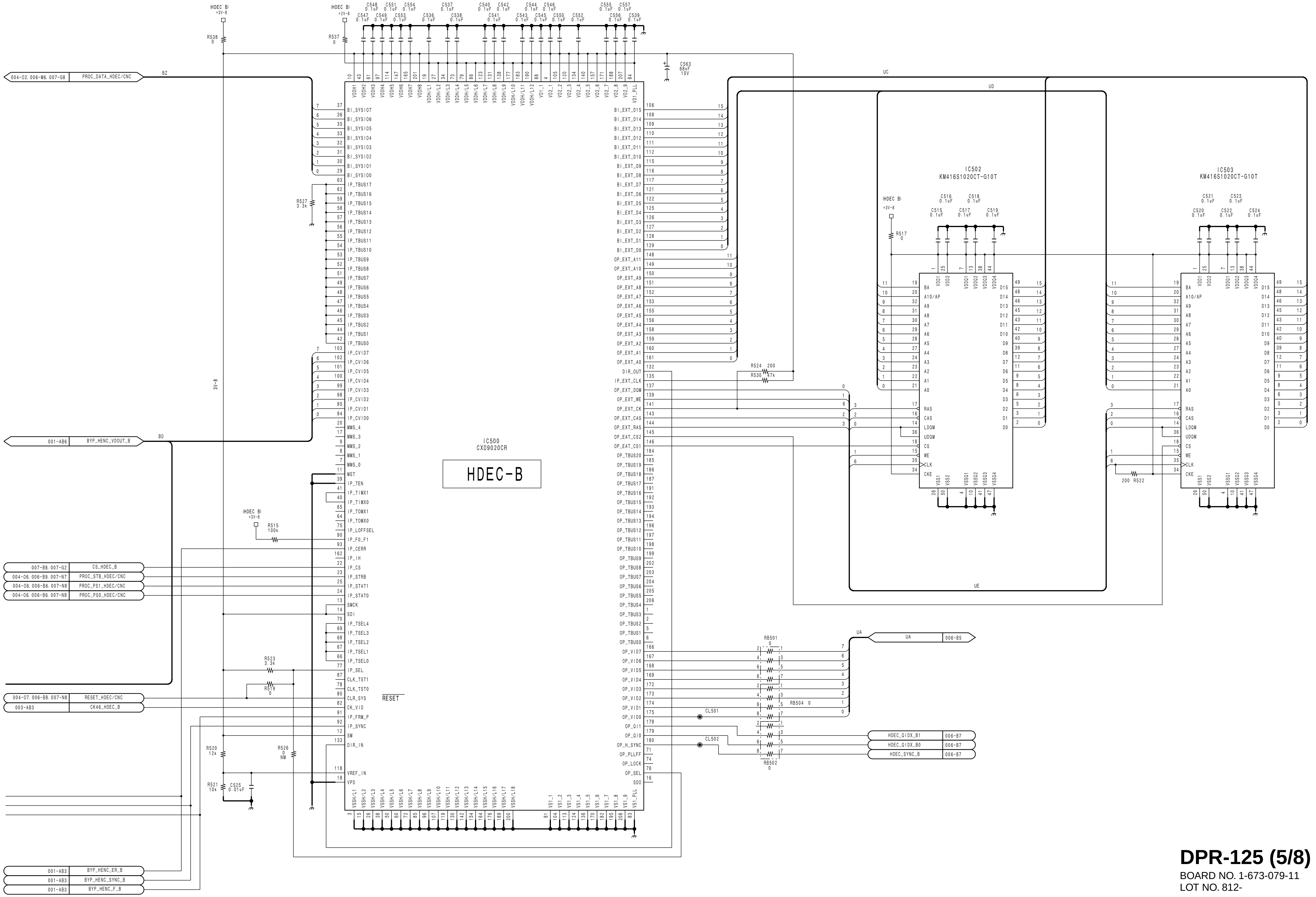

IC500
CXD9020CR
HDEC-B
IC502
KM416S1020CT-G10T
IC503
KM416S1020CT-G10T
PROC_DATA_HDEC/CNC
004-02, 006-M6, 007-G8
BYP_HENC_VDOUT_B
001-AB6
CS_HDEC_B
007-B8, 007-G2
PROC_STB_HDEC/CNC
004-06, 006-B9, 007-N7
PROC_PS1_HDEC/CNC
004-06, 006-B6, 007-N8
PROC_PS0_HDEC/CNC
004-06, 006-B6, 007-N8
RESET_HDEC/CNC
004-07, 006-B8, 007-N8
CK46_HDEC_B
003-AB3
BYP_HENC_ER_B
BYP_HENC_SYNC_B
BYP_HENC_F_B
001-AB3
UA
006-B5
HDEC_QIDX_B1
HDEC_QIDX_B0
HDEC_SYNC_B
006-B7
RESET
(HDEC B) +3V-8
C563 68uF 10V
R538 0
R537 0
R527 3.3k
R515 100k
R523 3.3k
R519 0
R520 12k
R526 0 NM
R521 10k
C525 0.01uF
R524 200
R530 47k
R517 0
R522 200
RB501 0
RB502 0
RB504 0
CL501
CL502
UC
UD
UE

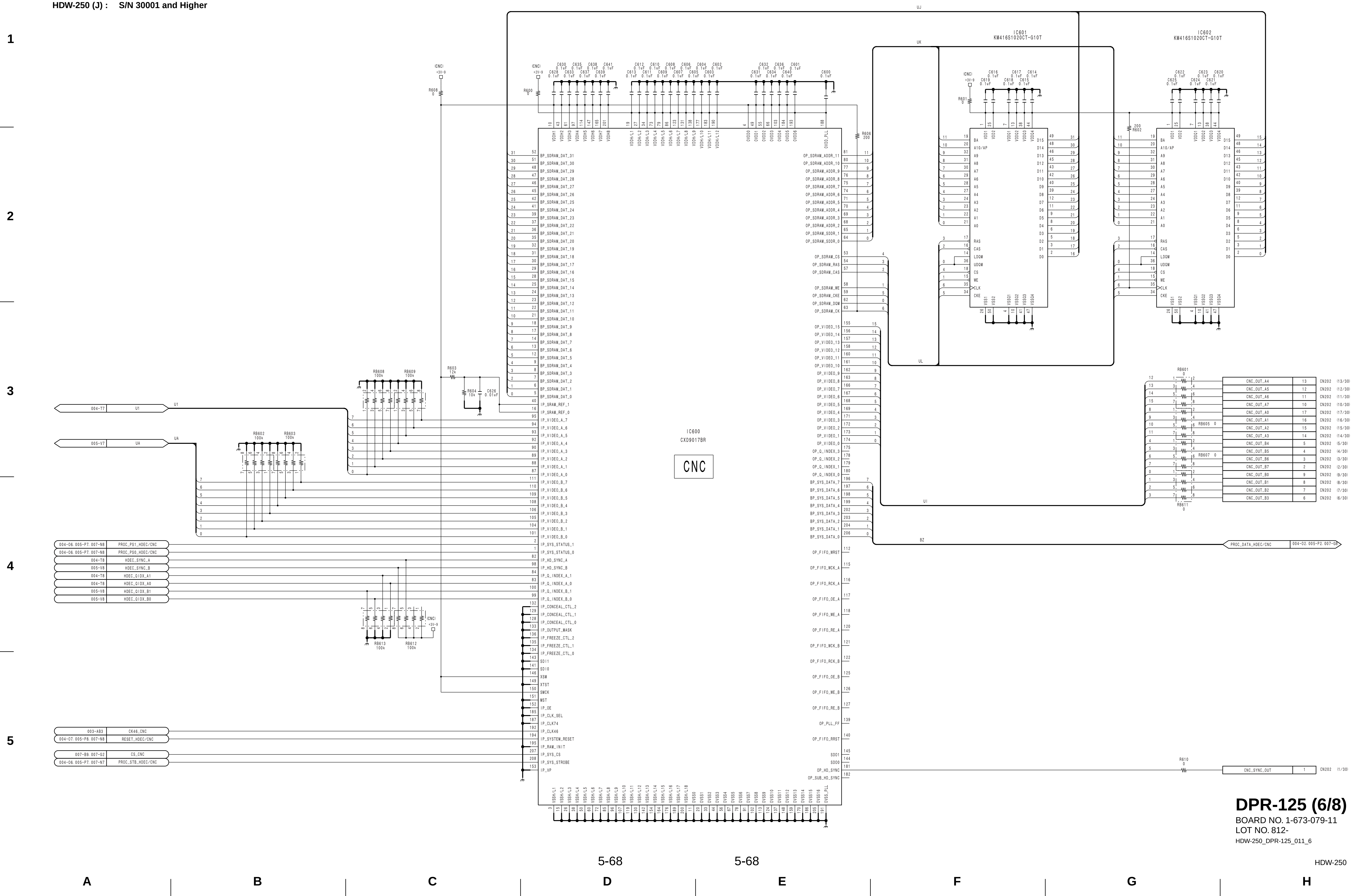
DPR-125 (5/8)

BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_5

I J K L M N O P

DPR-125 (6/8)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher



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A
B
C
D
E
F
G
H
IC600
CXD9017BR
CNC
IC601
KM416S1020CT-G10T
IC602
KM416S1020CT-G10T
(CNC) +3V-9
R608 0
R600 0
R601 0
R602 200
R608 200
R603 12k
R604 10k
C626 0.01uF
RB608 100k
RB609 100k
RB602 100k
RB603 100k
RB613 100k
RB612 100k
RB601 0
RB605 0
RB607 0
RB611 0
R610 0
UJ
UK
UL
UI
U1
UA
BZ
004-T7
005-V7
004-O6, 005-P7, 007-N8 PROC_PS1_HDEC/CNC
004-O6, 005-P7, 007-N8 PROC_PS0_HDEC/CNC
004-T8 HDEC_SYNC_A
005-V8 HDEC_SYNC_B
004-T8 HDEC_QIDX_A1
004-T8 HDEC_QIDX_A0
005-V8 HDEC_QIDX_B1
005-V8 HDEC_QIDX_B0
003-AB3 CK46_CNC
004-O7, 005-P8, 007-N8 RESET_HDEC/CNC
007-B9, 007-G2 CS_CNC
004-O6, 005-P7, 007-N7 PROC_STB_HDEC/CNC
PROC_DATA_HDEC/CNC 004-D2, 005-P2, 007-G8
CNC_OUT_A4 CN202 (13/30)
CNC_OUT_A5 CN202 (12/30)
CNC_OUT_A6 CN202 (11/30)
CNC_OUT_A7 CN202 (10/30)
CNC_OUT_A0 CN202 (17/30)
CNC_OUT_A1 CN202 (16/30)
CNC_OUT_A2 CN202 (15/30)
CNC_OUT_A3 CN202 (14/30)
CNC_OUT_B4 CN202 (5/30)
CNC_OUT_B5 CN202 (4/30)
CNC_OUT_B6 CN202 (3/30)
CNC_OUT_B7 CN202 (2/30)
CNC_OUT_B0 CN202 (9/30)
CNC_OUT_B1 CN202 (8/30)
CNC_OUT_B2 CN202 (7/30)
CNC_OUT_B3 CN202 (6/30)
CNC_SYNC_OUT CN202 (1/30)
BP_SDRAM_DAT_31 … BP_SDRAM_DAT_0
BP_SRAM_REF_1
BP_SRAM_REF_0
IP_VIDEO_A_7 … IP_VIDEO_A_0
IP_VIDEO_B_7 … IP_VIDEO_B_0
IP_SYS_STATUS_1
IP_SYS_STATUS_0
IP_HD_SYNC_A
IP_HD_SYNC_B
IP_Q_INDEX_A_1
IP_Q_INDEX_A_0
IP_Q_INDEX_B_1
IP_Q_INDEX_B_0
IP_CONCEAL_CTL_2
IP_CONCEAL_CTL_1
IP_CONCEAL_CTL_0
IP_OUTPUT_MASK
IP_FREEZE_CTL_2
IP_FREEZE_CTL_1
IP_FREEZE_CTL_0
SDI1
SDI0
XSM
XTST
SMCK
MST
IP_OE
IP_CLK_SEL
IP_CLK74
IP_CLK46
IP_SYSTEM_RRST
IP_RAM_INIT
IP_SYS_CS
IP_SYS_STROBE
IP_VP
OP_SDRAM_ADDR_11 … OP_SDRAM_ADDR_0
OP_SDRAM_CS
OP_SDRAM_RAS
OP_SDRAM_CAS
OP_SDRAM_WE
OP_SDRAM_CKE
OP_SDRAM_DQM
OP_SDRAM_CK
OP_VIDEO_15 … OP_VIDEO_0
OP_Q_INDEX_3 … OP_Q_INDEX_0
BP_SYS_DATA_7 … BP_SYS_DATA_0
OP_FIFO_WRST
OP_FIFO_WCK_A
OP_FIFO_RCK_A
OP_FIFO_OE_A
OP_FIFO_WE_A
OP_FIFO_RE_A
OP_FIFO_WCK_B
OP_FIFO_RCK_B
OP_FIFO_OE_B
OP_FIFO_WE_B
OP_FIFO_RE_B
OP_PLL_FF
OP_FIFO_RRST
SDO1
SDO0
OP_HD_SYNC
OP_SUB_HD_SYNC
BA
A10/AP
A9 … A0
RAS
CAS
LDQM
UDQM
CS
WE
CLK
CKE
D15 … D0
VDD1
VDD2
VDDQ1 … VDDQ4
VSS1
VSS2
VSSQ1 … VSSQ4

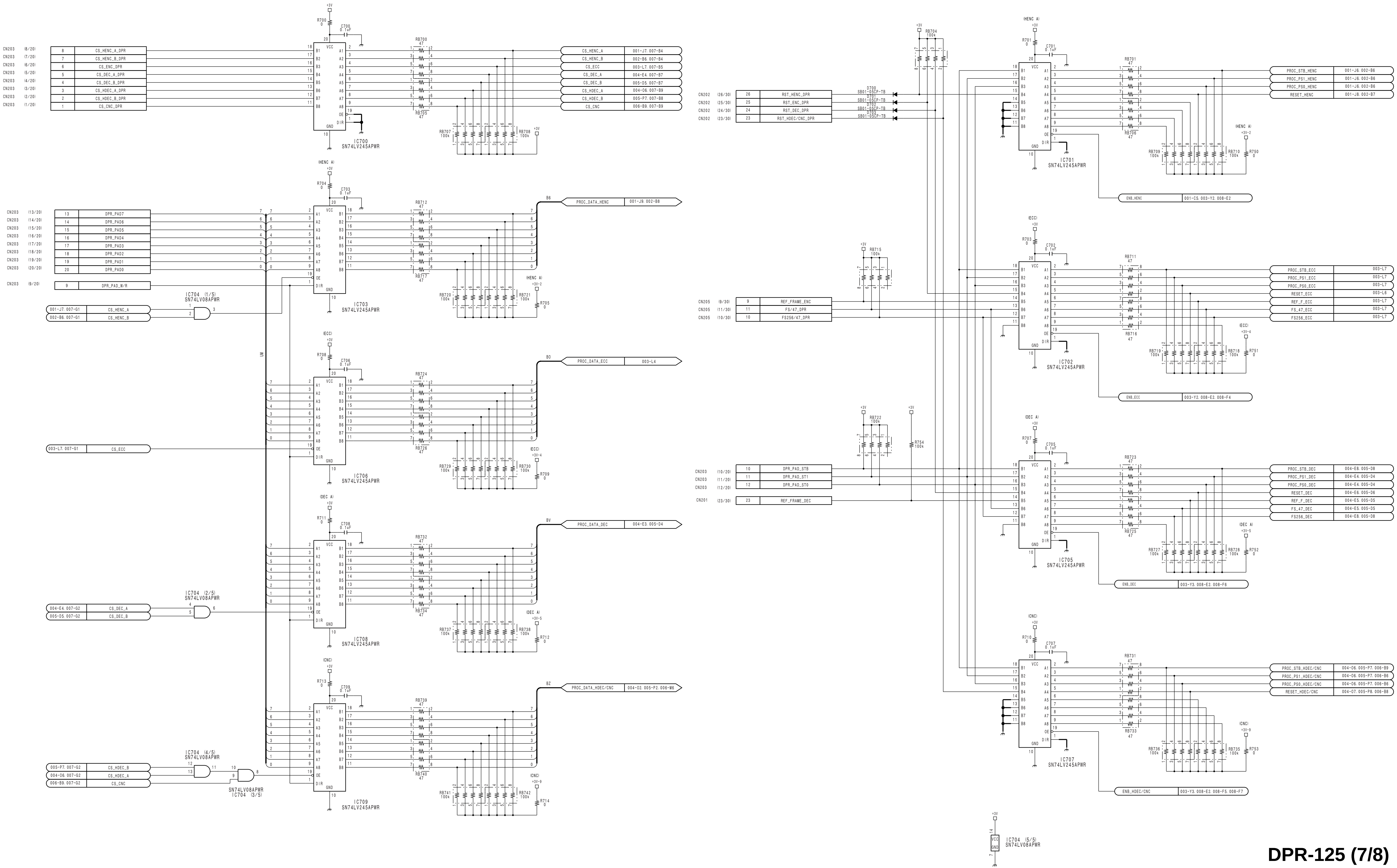
DPR-125 (6/8)

BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_6

5-68

DPR-125 (7/8)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC700 SN74LV245APWR
IC703 SN74LV245APWR
IC706 SN74LV245APWR
IC708 SN74LV245APWR
IC709 SN74LV245APWR
IC701 SN74LV245APWR
IC702 SN74LV245APWR
IC705 SN74LV245APWR
IC707 SN74LV245APWR
IC704 (1/5) SN74LV08APWR
IC704 (2/5) SN74LV08APWR
IC704 (3/5) SN74LV08APWR
IC704 (4/5) SN74LV08APWR
IC704 (5/5) SN74LV08APWR
CS_HENC_A_DPR
CS_HENC_B_DPR
CS_ENC_DPR
CS_DEC_A_DPR
CS_DEC_B_DPR
CS_HDEC_A_DPR
CS_HDEC_B_DPR
CS_CNC_DPR
CS_HENC_A
CS_HENC_B
CS_ECC
CS_DEC_A
CS_DEC_B
CS_HDEC_A
CS_HDEC_B
CS_CNC
DPR_PAD7
DPR_PAD6
DPR_PAD5
DPR_PAD4
DPR_PAD3
DPR_PAD2
DPR_PAD1
DPR_PAD0
DPR_PAD_W/R
PROC_DATA_HENC
PROC_DATA_ECC
PROC_DATA_DEC
PROC_DATA_HDEC/CNC
RST_HENC_DPR
RST_ENC_DPR
RST_DEC_DPR
RST_HDEC/CNC_DPR
REF_FRAME_ENC
FS/47_DPR
FS256/47_DPR
DPR_PAD_STB
DPR_PAD_ST1
DPR_PAD_ST0
REF_FRAME_DEC
PROC_STB_HENC
PROC_PS1_HENC
PROC_PS0_HENC
RESET_HENC
ENB_HENC
PROC_STB_ECC
PROC_PS1_ECC
PROC_PS0_ECC
RESET_ECC
REF_F_ECC
FS_47_ECC
FS256_ECC
ENB_ECC
PROC_STB_DEC
PROC_PS1_DEC
PROC_PS0_DEC
RESET_DEC
REF_F_DEC
FS_47_DEC
FS256_DEC
ENB_DEC
PROC_STB_HDEC/CNC
PROC_PS1_HDEC/CNC
PROC_PS0_HDEC/CNC
RESET_HDEC/CNC
ENB_HDEC/CNC
CN203
CN202
CN205
CN201
D700 SB01-05CP-TB
D701 SB01-05CP-TB
D702 SB01-05CP-TB
D703 SB01-05CP-TB
+3V
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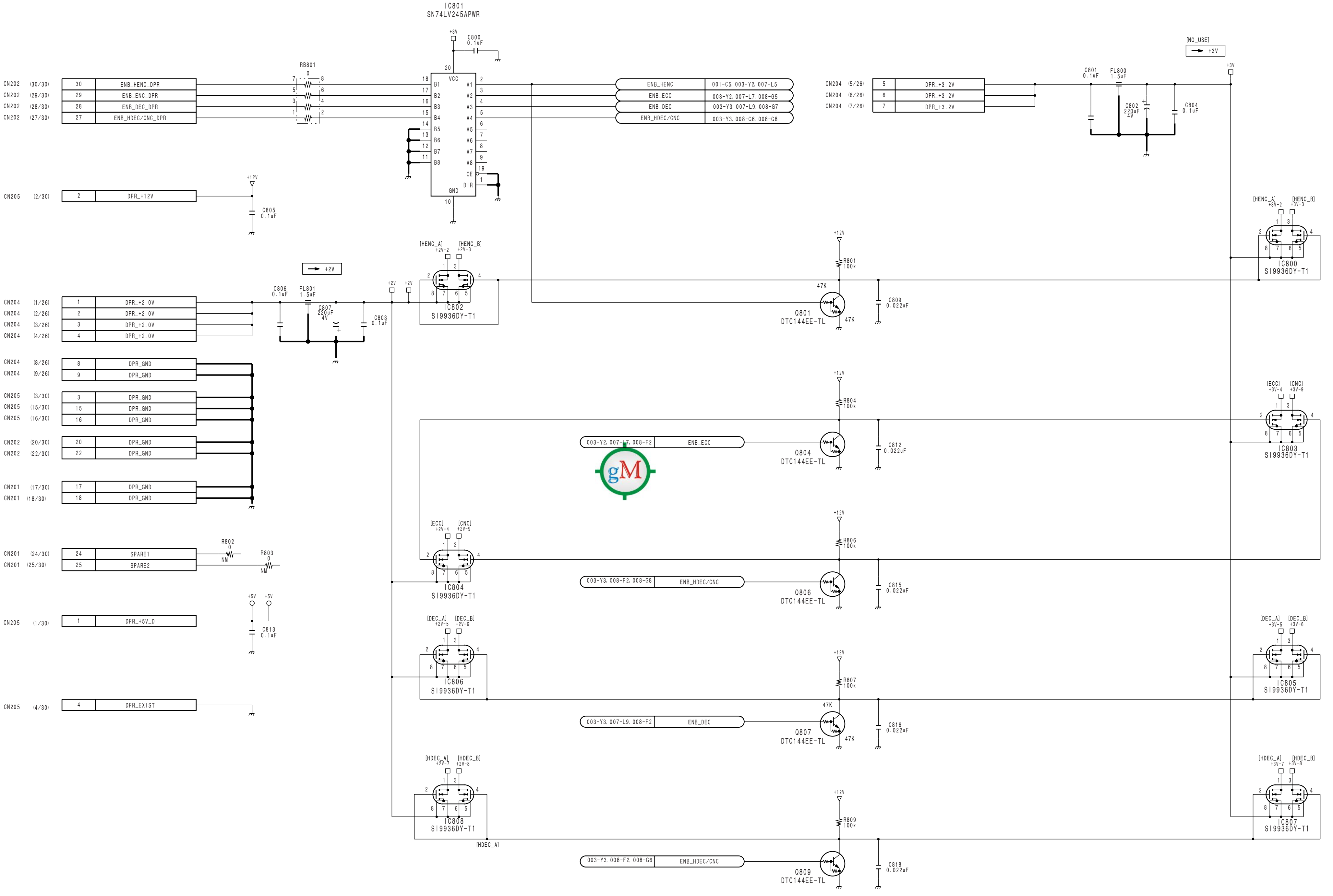
DPR-125 (7/8)

BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_7

5-69

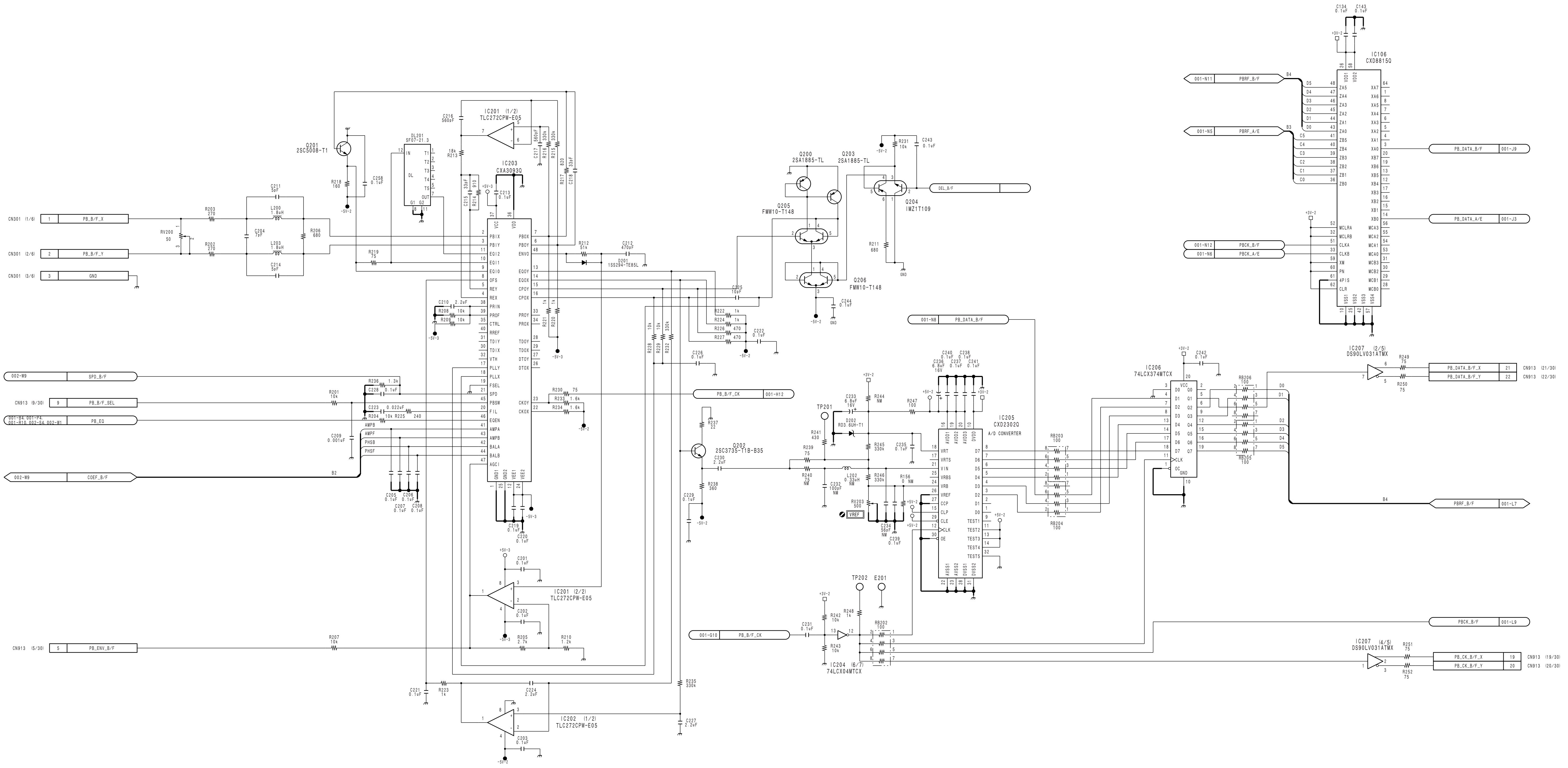
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC801
SN74LV245APWR
+3V
C800 0.1uF
RB801 0
CN202 (30/30) 30 ENB_HENC_DPR
CN202 (29/30) 29 ENB_ENC_DPR
CN202 (28/30) 28 ENB_DEC_DPR
CN202 (27/30) 27 ENB_HDEC/CNC_DPR
VCC
B1 B2 B3 B4 B5 B6 B7 B8
A1 A2 A3 A4 A5 A6 A7 A8
OE
DIR
GND
ENB_HENC 001-C5, 003-Y2, 007-L5
ENB_ECC 003-Y2, 007-L7, 008-G5
ENB_DEC 003-Y3, 007-L9, 008-G7
ENB_HDEC/CNC 003-Y3, 008-G6, 008-G8
CN204 (5/26) 5 DPR_+3.2V
CN204 (6/26) 6 DPR_+3.2V
CN204 (7/26) 7 DPR_+3.2V
[NO_USE]
+3V
C801 0.1uF
FL800 1.5uF
C802 220uF 4V
C804 0.1uF
CN205 (2/30) 2 DPR_+12V
+12V
C805 0.1uF
+2V
C806 0.1uF
FL801 1.5uF
C807 220uF 4V
C803 0.1uF
CN204 (1/26) 1 DPR_+2.0V
CN204 (2/26) 2 DPR_+2.0V
CN204 (3/26) 3 DPR_+2.0V
CN204 (4/26) 4 DPR_+2.0V
CN204 (8/26) 8 DPR_GND
CN204 (9/26) 9 DPR_GND
CN205 (3/30) 3 DPR_GND
CN205 (15/30) 15 DPR_GND
CN205 (16/30) 16 DPR_GND
CN202 (20/30) 20 DPR_GND
CN202 (22/30) 22 DPR_GND
CN201 (17/30) 17 DPR_GND
CN201 (18/30) 18 DPR_GND
CN201 (24/30) 24 SPARE1
CN201 (25/30) 25 SPARE2
R802 0
R803 0
NM
+5V
CN205 (1/30) 1 DPR_+5V_D
C813 0.1uF
CN205 (4/30) 4 DPR_EXIST
[HENC_A] +2V-2 [HENC_B] +2V-3
IC802 SI9936DY-T1
[ECC] +2V-4 [CNC] +2V-9
IC804 SI9936DY-T1
[DEC_A] +2V-5 [DEC_B] +2V-6
IC806 SI9936DY-T1
[HDEC_A] +2V-7 [HDEC_B] +2V-8
IC808 SI9936DY-T1
[HDEC_A]
[HENC_A] +3V-2 [HENC_B] +3V-3
IC800 SI9936DY-T1
[ECC] +3V-4 [CNC] +3V-9
IC803 SI9936DY-T1
[DEC_A] +3V-5 [DEC_B] +3V-6
IC805 SI9936DY-T1
[HDEC_A] +3V-7 [HDEC_B] +3V-8
IC807 SI9936DY-T1
R801 100k
47K
Q801 DTC144EE-TL
C809 0.022uF
R804 100k
003-Y2, 007-L7, 008-F2 ENB_ECC
Q804 DTC144EE-TL
C812 0.022uF
R806 100k
003-Y3, 008-F2, 008-G8 ENB_HDEC/CNC
Q806 DTC144EE-TL
C815 0.022uF
R807 100k
003-Y3, 007-L9, 008-F2 ENB_DEC
Q807 DTC144EE-TL
C816 0.022uF
R809 100k
003-Y3, 008-F2, 008-G8 ENB_HDEC/CNC
Q809 DTC144EE-TL
C818 0.022uF
1 2 3 4 5
A B C D E F G H

DPR-125 (8/8)
BOARD NO. 1-673-079-11
LOT NO. 812-
HDW-250_DPR-125_011_8

EQ-76 (1/5)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher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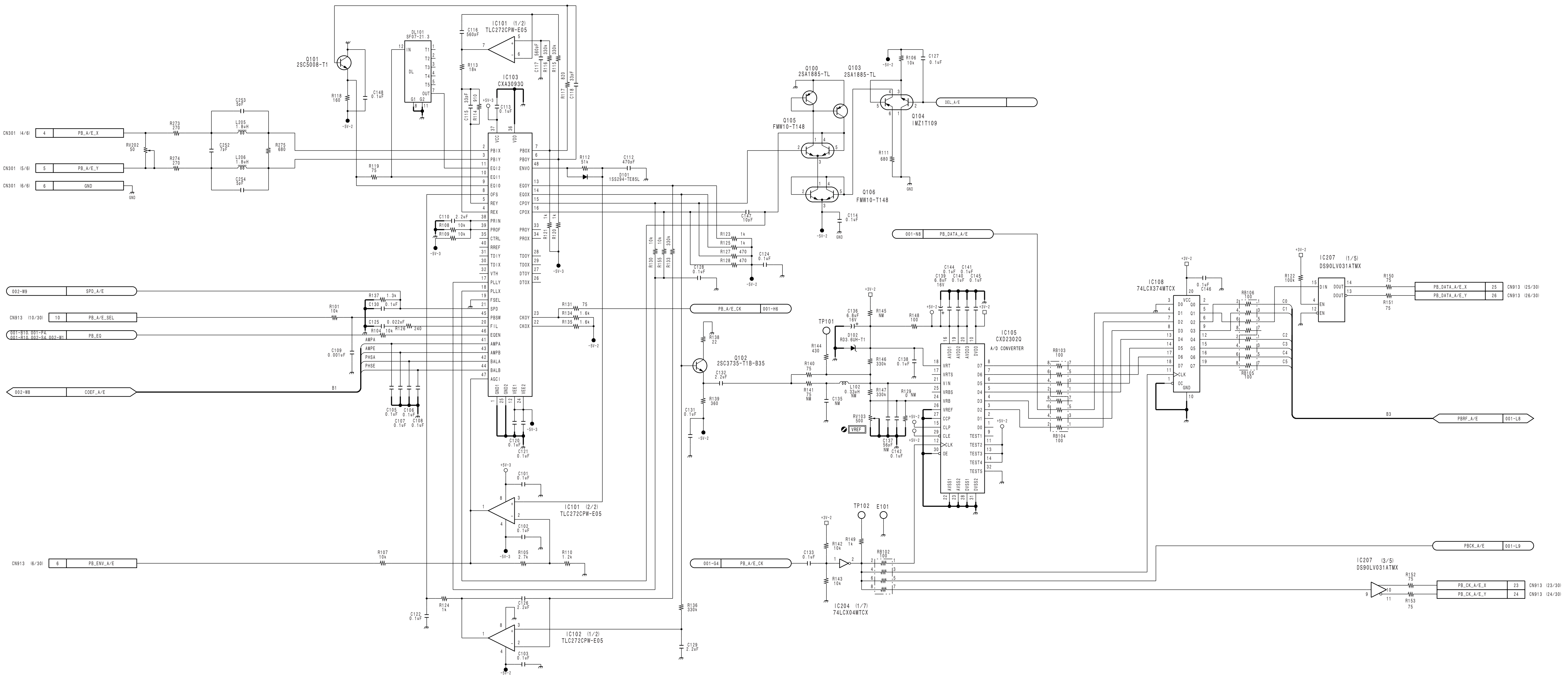
A
B
C
D
E
F
G
H
CN301 (1/6) PB_B/F_X
CN301 (2/6) PB_B/F_Y
CN301 (3/6) GND
002-W9 SPD_B/F
CN913 (9/30) PB_B/F_SEL
PB_EQ
002-W9 COEF_B/F
CN913 (5/30) PB_ENV_B/F
Q201 2SC5008-T1
DL201 SFD7-21.3
IC201 (1/2) TLC272CPW-E05
IC203 CXA3093Q
IC201 (2/2) TLC272CPW-E05
IC202 (1/2) TLC272CPW-E05
D201 1SS294-TE85L
Q200 2SA1885-TL
Q203 2SA1885-TL
Q205 FMW10-T148
Q206 FMW10-T148
Q204 IMZ1T109
Q202 2SC3735-T1B-B35
SEL_B/F
001-H12 PB_B/F_CK
001-G10 PB_B/F_CK
TP201
TP202
E201
IC205 CXD2302Q A/D CONVERTER
IC204 (6/7) 74LCX04MTCX
IC206 74LCX374MTCX
IC106 CXD8815Q
001-N11 PBRF_B/F
001-N5 PBRF_A/E
001-N12 PBCK_B/F
001-N6 PBCK_A/E
001-N8 PB_DATA_B/F
PB_DATA_B/F 001-J9
PB_DATA_A/E 001-J3
IC207 (2/5) DS90LV031ATMX
PB_DATA_B/F_X CN913 (21/30)
PB_DATA_B/F_Y CN913 (22/30)
PBRF_B/F 001-L7
PBCK_B/F 001-L9
IC207 (4/5) DS90LV031ATMX
PB_CK_B/F_X CN913 (19/30)
PB_CK_B/F_Y CN913 (20/30)
VREF

5-72


CN301 (4/6) 4 PB_A/E_X
CN301 (5/6) 5 PB_A/E_Y
CN301 (6/6) 6 GND
RV202 50
R273 270
R274 270
L205 1.8uH
L206 1.8uH
C253 3pF
C252 7pF
C254 3pF
R275 680
Q101 2SC5008-T1
R118 180
C148 0.1uF
R119 75
DL101 SF07-21.3
IC101 (1/2) TLC272CPW-E05
C116 560pF
R113 18k
IC103 CXA3093Q
C113 0.1uF
R112 51k
C112 470uF
D101 1SS294-TE85L
C110 2.2uF
R108 10k
R109 10k
Q100 2SA1885-TL
Q103 2SA1885-TL
Q105 FMW10-T148
Q106 FMW10-T148
Q104 IMZ1T109
R106 10k
C127 0.1uF
R111 680
DEL_A/E
C147 10uF
C114 0.1uF
R123 1k
R125 1k
R127 470
R128 470
C124 0.1uF
C128 0.1uF
002-W9 SPD_A/E
CN913 (10/30) 10 PB_A/E_SEL
001-B10 001-F4 001-R10 002-S4 002-W1 PB_EQ
002-W8 COEF_A/E
R101 10k
C109 0.001uF
R137 1.3k
C130 0.1uF
C125 0.022uF
R126 240
R104 10k
C105 0.1uF
C107 0.1uF
C106 0.1uF
C108 0.1uF
C120 0.1uF
C121 0.1uF
R131 75
R134 1.6k
R135 1.6k
PB_A/E_CK 001-H6
R138 22
Q102 2SC3735-T1B-B35
C132 2.2uF
R139 360
C131 0.1uF
001-N8 PB_DATA_A/E
IC105 CXD2302Q A/D CONVERTER
TP101
D102 RD3.6UM-T1
C136 6.8uF 16V
R145 NM
R148 100
R144 430
R140 75
R141 75 NM
C135 NM
L102 0.33uH NM
R146 330k
R147 330k
R129 0 NM
C138 0.1uF
RV103 500
VREF
C137 56pF NM
C142 0.1uF
C144 0.1uF
C141 0.1uF
C139 6.8uF 16V
C140 0.1uF
C145 0.1uF
RB103 100
RB104 100
IC108 74LCX374MTCX
C146 0.1uF
RB106 100
RB105 100
IC207 (1/5) DS90LV031ATMX
R122 100k
R150 75
R151 75
PB_DATA_A/E_X 25 CN913 (25/30)
PB_DATA_A/E_Y 26 CN913 (26/30)
PBRF_A/E 001-L8
IC101 (2/2) TLC272CPW-E05
C101 0.1uF
C102 0.1uF
R105 2.7k
R110 1.2k
CN913 (6/30) 6 PB_ENV_A/E
R107 10k
R124 1k
C122 0.1uF
C126 2.2uF
IC102 (1/2) TLC272CPW-E05
C103 0.1uF
R136 330k
C129 2.2uF
TP102 E101
001-G4 PB_A/E_CK
C133 0.1uF
R142 10k
R143 10k
R149 1k
RB102 100
IC204 (1/7) 74LCX04MTCX
PBCK_A/E 001-L9
IC207 (3/5) DS90LV031ATMX
R152 75
R153 75
PB_CK_A/E_X 23 CN913 (23/30)
PB_CK_A/E_Y 24 CN913 (24/30)
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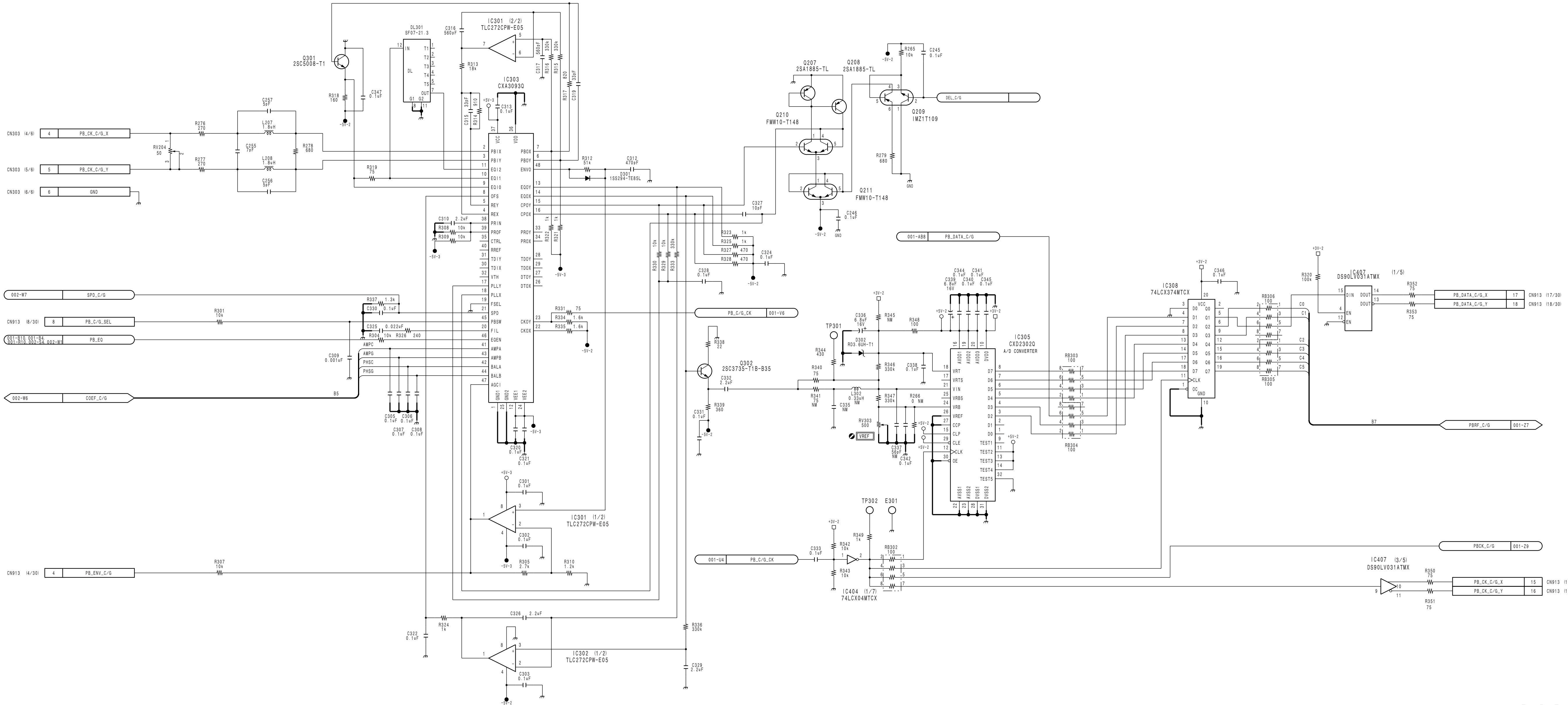
EQ-76 (1/5)

BOARD NO. 1-673-081-11
LOT NO. 812-
HDW-250_EQ-76_011_1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC301 (2/2) TLC272CPW-E05
IC303 CXA3093Q
DL301 SF07-21.3
Q301 2SC5008-T1
Q207 2SA1885-TL
Q208 2SA1885-TL
Q209 IMZ1T109
Q210 FMW10-T148
Q211 FMW10-T148
Q302 2SC3735-T1B-B35
D301 1SS294-TE85L
IC301 (1/2) TLC272CPW-E05
IC302 (1/2) TLC272CPW-E05
IC305 CXD2302Q A/D CONVERTER
IC308 74LCX374MTCX
IC407 (1/5) DS90LV031ATMX
IC407 (3/5) DS90LV031ATMX
IC404 (1/7) 74LCX04MTCX
TP301
TP302
E301
CN303 (4/6) PB_CK_C/G_X
CN303 (5/6) PB_CK_C/G_Y
CN303 (6/6) GND
002-W7 SPD_C/G
CN913 (8/30) PB_C/G_SEL
PB_EQ
002-W6 COEF_C/G
CN913 (4/30) PB_ENV_C/G
DEL_C/G
001-AB8 PB_DATA_C/G
PB_C/G_CK 001-V6
001-U4 PB_C/G_CK
PB_DATA_C/G_X CN913 (17/30)
PB_DATA_C/G_Y CN913 (18/30)
PBRF_C/G 001-Z7
PBCK_C/G 001-Z8
PB_CK_C/G_X CN913 (15/30)
PB_CK_C/G_Y CN913 (16/30)
VREF
1
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A
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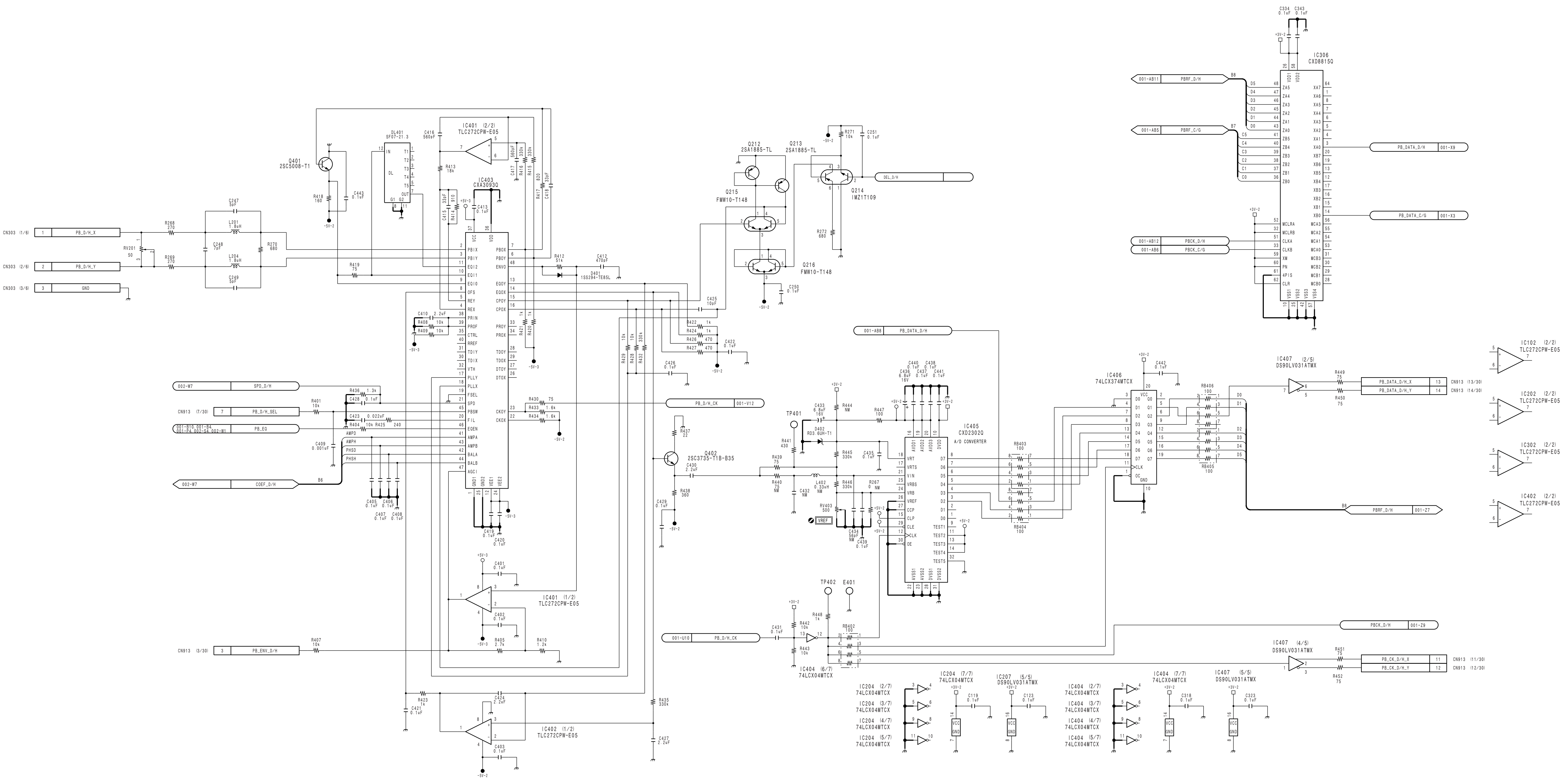
EQ-76 (2/5)

BOARD NO. 1-673-081-11
LOT NO. 812-
HDW-250_EQ-76_011_2

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

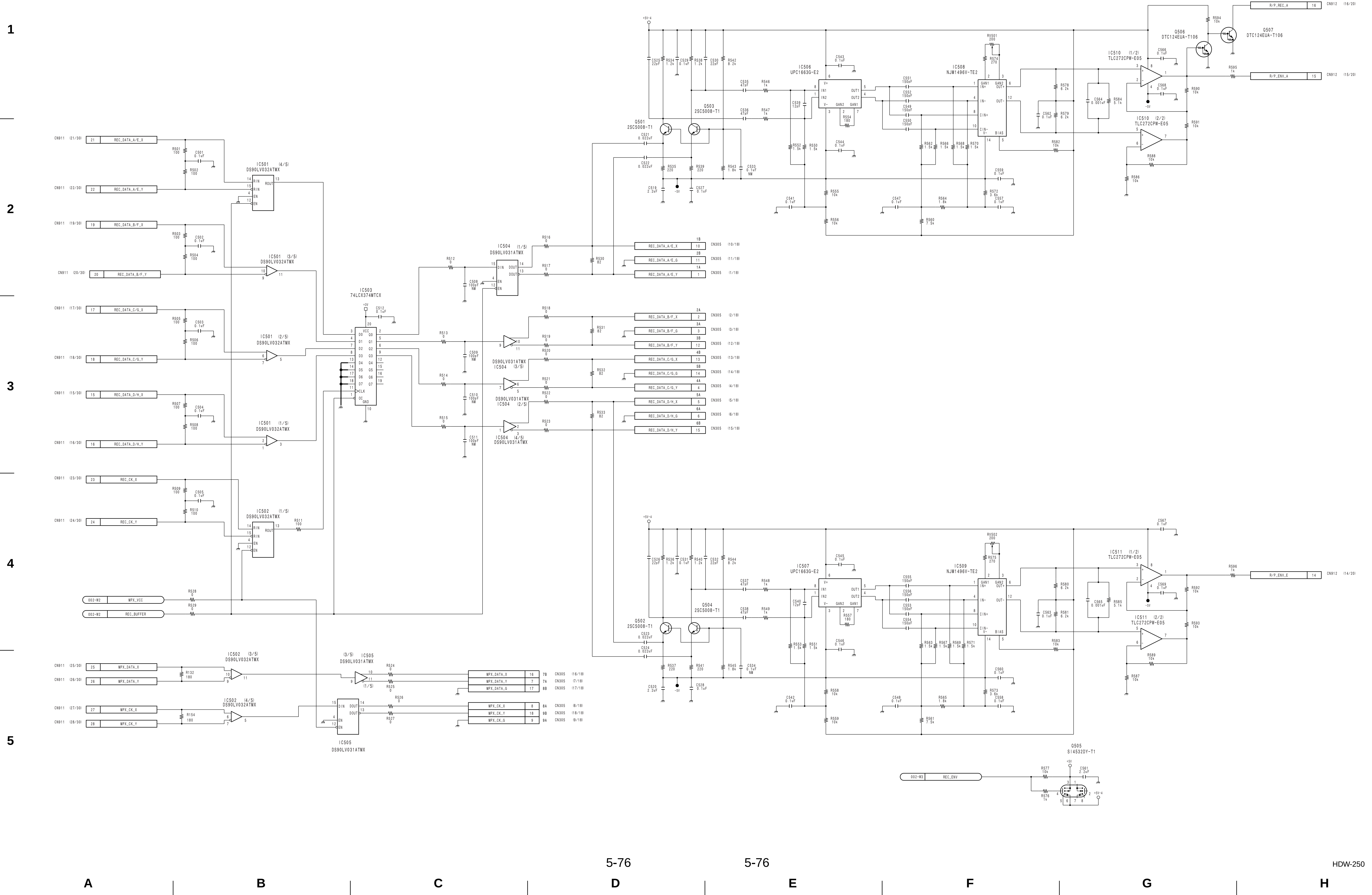

1
2
3
4
5
CN303 (1/6)
PB_D/H_X
CN303 (2/6)
PB_D/H_Y
CN303 (3/6)
GND
RV201 50
R268 270
R269 270
L201 1.8uH
L204 1.8uH
C247 9P
C248 75P
C249 39P
R270 680
Q401 2SC5008-T1
DL401 SF07-21.3
IC401 (2/2) TLC272CPW-E05
IC403 CXA3093Q
IC401 (1/2) TLC272CPW-E05
IC402 (1/2) TLC272CPW-E05
002-W7 SPD_D/H
CN913 (7/30) PB_D/H_SEL
PB_EQ
002-W7 COEF_D/H
CN913 (3/30) PB_ENV_D/H
D401 1SS294-TE85L
Q212 2SA1885-TL
Q213 2SA1885-TL
Q215 FMW10-T148
Q216 FMW10-T148
Q214 IMZ1T109
SEL_D/H
Q402 2SC3735-Y1B-B35
001-V12 PB_D/H_CK
TP401
D402 RD3.6UH-T1
IC405 CXD2302Q A/D CONVERTER
VREF
001-AB8 PB_DATA_D/H
IC406 74LCX374MTCX
IC407 (2/5) DS90LV031ATMX
PB_DATA_D/H_X
PB_DATA_D/H_Y
CN913 (13/30)
CN913 (14/30)
IC306 CXD8815Q
001-AB11 PBRF_D/H
001-AB5 PBRF_C/G
001-X9 PB_DATA_D/H
001-X3 PB_DATA_C/G
001-AB12 PBCK_D/H
001-AB6 PBCK_C/G
PBRF_D/H 001-Z7
PBCK_D/H 001-Z9
IC407 (4/5) DS90LV031ATMX
PB_CK_D/H_X
PB_CK_D/H_Y
CN913 (11/30)
CN913 (12/30)
TP402
E401
001-U10 PB_D/H_CK
IC404 (6/7) 74LCX04MTCX
IC204 (2/7) 74LCX04MTCX
IC204 (3/7) 74LCX04MTCX
IC204 (4/7) 74LCX04MTCX
IC204 (5/7) 74LCX04MTCX
IC204 (7/7) 74LCX04MTCX
IC207 (5/5) DS90LV031ATMX
IC404 (2/7) 74LCX04MTCX
IC404 (3/7) 74LCX04MTCX
IC404 (4/7) 74LCX04MTCX
IC404 (5/7) 74LCX04MTCX
IC404 (7/7) 74LCX04MTCX
IC407 (5/5) DS90LV031ATMX
IC102 (2/2) TLC272CPW-E05
IC202 (2/2) TLC272CPW-E05
IC302 (2/2) TLC272CPW-E05
IC402 (2/2) TLC272CPW-E05

EQ-76 (3/5)

BOARD NO. 1-673-081-11
LOT NO. 812-
HDW-250_EQ-76_011_3

EQ-76 (4/5)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
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A
B
C
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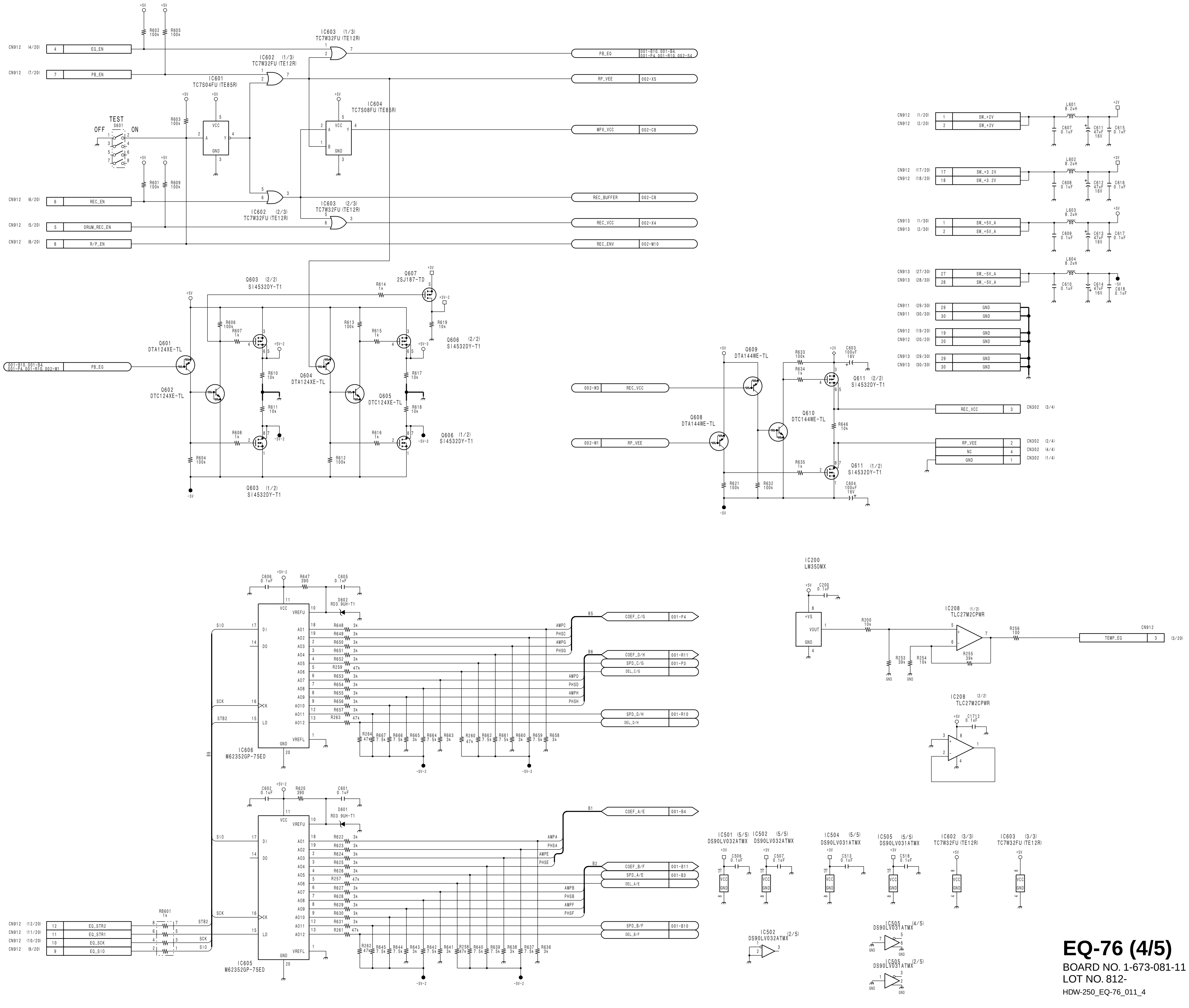
E
F
G
H
CN911
REC_DATA_A/E_X
REC_DATA_A/E_Y
REC_DATA_B/F_X
REC_DATA_B/F_Y
REC_DATA_C/G_X
REC_DATA_C/G_Y
REC_DATA_D/H_X
REC_DATA_D/H_Y
REC_CK_X
REC_CK_Y
IC501 DS90LV032ATMX
IC502 DS90LV032ATMX
IC503 74LCX374MTCX
IC504 DS90LV031ATMX
IC505 DS90LV031ATMX
MPX_VCC
REC_BUFFER
MPX_DATA_X
MPX_DATA_Y
MPX_DATA_G
MPX_CK_X
MPX_CK_Y
MPX_CK_G
CN305
REC_DATA_A/E_G
REC_DATA_B/F_G
REC_DATA_C/G_G
REC_DATA_D/H_G
Q501 2SC5008-T1
Q502 2SC5008-T1
Q503 2SC5008-T1
Q504 2SC5008-T1
IC506 UPC1663G-E2
IC507 UPC1663G-E2
IC508 NJM1496V-TE2
IC509 NJM1496V-TE2
IC510 TLC272CPW-E05
IC511 TLC272CPW-E05
Q506 DTC124EUA-T106
Q507 DTC124EUA-T106
CN912
R/P_REC_A
R/P_ENV_A
R/P_ENV_E
Q505 SI4532DY-T1
REC_ENV
+5V-4
-5V

5-76


1
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CN912 (4/20) EQ_EN
CN912 (7/20) PB_EN
CN912 (6/20) REC_EN
CN912 (5/20) DRUM_REC_EN
CN912 (8/20) R/P_EN
TEST S601 OFF ON
IC601 TC7S04FU (TE85R)
IC602 (1/3) TC7W32FU (TE12R)
IC602 (2/3) TC7W32FU (TE12R)
IC603 (1/3) TC7W32FU (TE12R)
IC603 (2/3) TC7W32FU (TE12R)
IC604 TC7S08FU (TE85R)
PB_EQ
RP_VEE
MPX_VCC
REC_BUFFER
REC_VCC
REC_ENV
Q601 DTA124XE-TL
Q602 DTC124XE-TL
Q603 (1/2) SI4532DY-T1
Q603 (2/2) SI4532DY-T1
Q604 DTA124XE-TL
Q605 DTC124XE-TL
Q606 (1/2) SI4532DY-T1
Q606 (2/2) SI4532DY-T1
Q607 2SJ187-TD
Q608 DTA144WE-TL
Q609 DTA144WE-TL
Q610 DTC144WE-TL
Q611 (1/2) SI4532DY-T1
Q611 (2/2) SI4532DY-T1
CN912 (1/20) SW_+2V
CN912 (2/20) SW_+2V
CN912 (17/20) SW_+3.2V
CN912 (18/20) SW_+3.2V
CN913 (1/30) SW_+5V_A
CN913 (2/30) SW_+5V_A
CN913 (27/30) SW_-5V_A
CN913 (28/30) SW_-5V_A
GND
CN302 (3/4) REC_VCC
CN302 (2/4) RP_VEE
CN302 (4/4) NC
CN302 (1/4) GND
IC606 M62352GP-75ED
IC605 M62352GP-75ED
COEF_C/G
COEF_D/H
SPD_C/G
DEL_C/G
SPD_D/H
DEL_D/H
COEF_A/E
COEF_B/F
SPD_A/E
DEL_A/E
SPD_B/F
DEL_B/F
CN912 (12/20) EQ_STB2
CN912 (11/20) EQ_STB1
CN912 (10/20) EQ_SCK
CN912 (9/20) EQ_SIO
RB601 1k
IC200 LM35DMX
IC208 (1/2) TLC27M2CPWR
IC208 (2/2) TLC27M2CPWR
CN912 TEMP_EQ (3/20)
IC501 (5/5) DS90LV032ATMX
IC502 (5/5) DS90LV032ATMX
IC504 (5/5) DS90LV031ATMX
IC505 (5/5) DS90LV031ATMX
IC602 (3/3) TC7W32FU (TE12R)
IC603 (3/3) TC7W32FU (TE12R)
IC502 (2/5) DS90LV032ATMX
IC505 (4/5) DS90LV031ATMX
IC505 (2/5) DS90LV031ATMX

EQ-76 (4/5)

BOARD NO. 1-673-081-11
LOT NO. 812-
HDW-250_EQ-76_011_4

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

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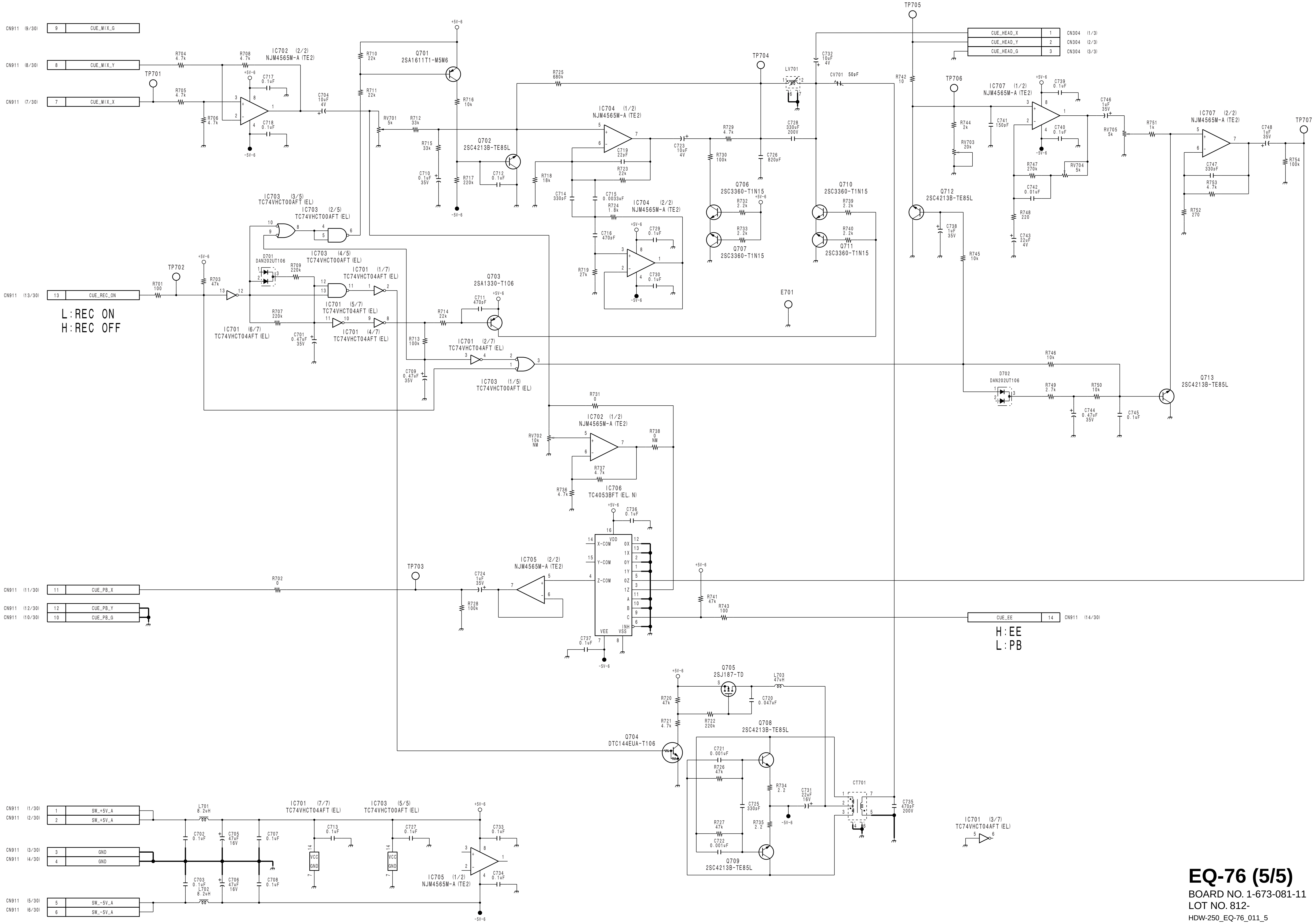

CN911 (9/30) 9 CUE_MIX_G
CN911 (8/30) 8 CUE_MIX_Y
CN911 (7/30) 7 CUE_MIX_X
TP701
R704 4.7k
R705 4.7k
R706 4.7k
R708 4.7k
IC702 (2/2) NJM4565M-A (TE2)
C717 0.1uF
C718 0.1uF
C704 10uF 4V
R710 22k
R711 22k
Q701 2SA1611T1-M5M6
R716 10k
RV701 5k
R712 33k
R715 33k
C710 0.1uF 35V
Q702 2SC4213B-TE85L
C712 0.1uF
R717 220k
R725 680k
IC704 (1/2) NJM4565M-A (TE2)
C719 22pF
R723 22k
R718 18k
C714 330pF
C715 0.0033uF
R724 1.8k
IC704 (2/2) NJM4565M-A (TE2)
C716 470pF
C729 0.1uF
C730 0.1uF
R719 27k
C723 10uF 4V
R729 4.7k
R730 100k
C726 820pF
C728 330pF 200V
TP704
LV701
C732 10uF 4V
CV701 50pF
Q706 2SC3360-T1N15
R732 2.2k
R733 2.2k
Q707 2SC3360-T1N15
Q710 2SC3360-T1N15
R739 2.2k
R740 2.2k
Q711 2SC3360-T1N15
E701
TP705
CN304 (1/3) 1 CUE_HEAD_X
CN304 (2/3) 2 CUE_HEAD_Y
CN304 (3/3) 3 CUE_HEAD_G
R742 10
TP706
R744 2k
RV703 20k
C741 150pF
IC707 (1/2) NJM4565M-A (TE2)
C739 0.1uF
C740 0.1uF
C746 1uF 35V
RV705 5k
R751 1k
R747 270k
RV704 5k
C742 0.01uF
R748 220
C743 22uF 4V
Q712 2SC4213B-TE85L
C738 1uF 35V
R745 10k
IC707 (2/2) NJM4565M-A (TE2)
C747 330pF
R753 4.7k
R752 270
C748 1uF 35V
R754 100k
TP707
IC703 (3/5) TC74VHCT00AFT (EL)
IC703 (2/5) TC74VHCT00AFT (EL)
IC703 (4/5) TC74VHCT00AFT (EL)
D701 DAN202UT106
R709 220k
IC701 (1/7) TC74VHCT04AFT (EL)
IC701 (5/7) TC74VHCT04AFT (EL)
IC701 (4/7) TC74VHCT04AFT (EL)
IC701 (6/7) TC74VHCT04AFT (EL)
R707 220k
C701 0.47uF 35V
TP702
R703 47k
R701 100
CN911 (13/30) 13 CUE_REC_ON
L:REC ON
H:REC OFF
Q703 2SA1330-T106
C711 470pF
R714 22k
R713 100k
C709 0.47uF 35V
IC701 (2/7) TC74VHCT04AFT (EL)
IC703 (1/5) TC74VHCT00AFT (EL)
R746 10k
D702 DAN202UT106
R749 2.7k
R750 10k
C744 0.47uF 35V
C745 0.1uF
Q713 2SC4213B-TE85L
R731 0
IC702 (1/2) NJM4565M-A (TE2)
RV702 10k NM
R738 0 NM
R737 4.7k
R736 4.7k
IC706 TC4053BFT (EL, N)
C736 0.1uF
C737 0.1uF
TP703
C724 1uF 35V
R702 0
R728 100k
IC705 (2/2) NJM4565M-A (TE2)
CN911 (11/30) 11 CUE_PB_X
CN911 (12/30) 12 CUE_PB_Y
CN911 (10/30) 10 CUE_PB_G
R741 47k
R743 100
CUE_EE 14 CN911 (14/30)
H:EE
L:PB
Q705 2SJ187-TD
L703 47uH
R720 47k
C720 0.047uF
R721 4.7k
R722 220k
Q708 2SC4213B-TE85L
Q704 DTC144EUA-T106
C721 0.001uF
R726 47k
R734 2.2
C731 22uF 16V
CT701
C735 470pF 200V
C725 330pF
R727 47k
C722 0.001uF
R735 2.2
Q709 2SC4213B-TE85L
IC701 (3/7) TC74VHCT04AFT (EL)
CN911 (1/30) 1 SW_+5V_A
CN911 (2/30) 2 SW_+5V_A
CN911 (3/30) 3 GND
CN911 (4/30) 4 GND
CN911 (5/30) 5 SW_-5V_A
CN911 (6/30) 6 SW_-5V_A
L701 8.2uH
L702 8.2uH
C702 0.1uF
C705 47uF 16V
C707 0.1uF
C703 0.1uF
C706 47uF 16V
C708 0.1uF
IC701 (7/7) TC74VHCT04AFT (EL)
IC703 (5/5) TC74VHCT00AFT (EL)
C713 0.1uF
C727 0.1uF
C733 0.1uF
C734 0.1uF
IC705 (1/2) NJM4565M-A (TE2)
+5V-6
-5V-6

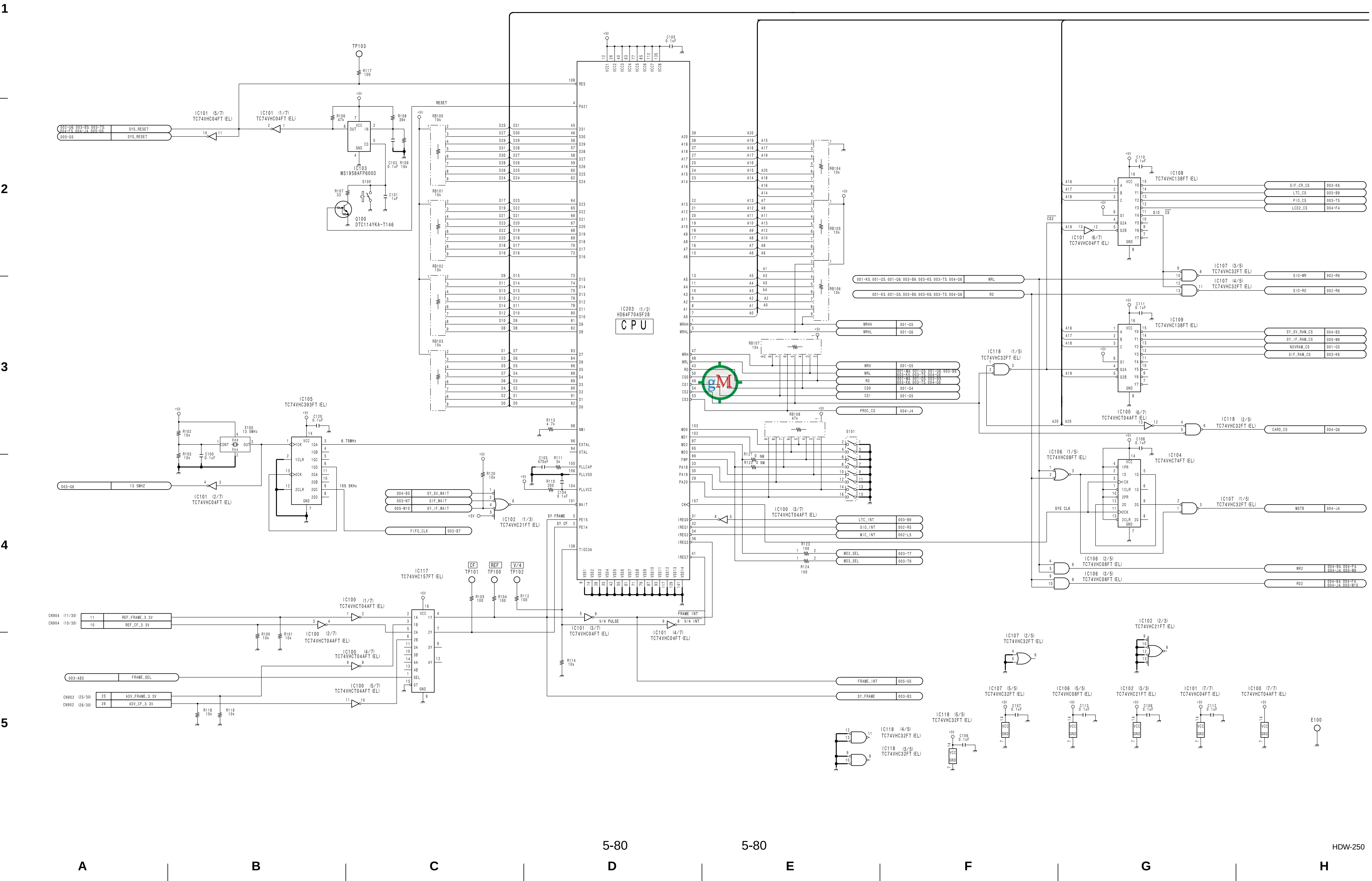
EQ-76 (5/5)

BOARD NO. 1-673-081-11
LOT NO. 812-
HDW-250_EQ-76_011_5

A B C D E F G H

SST-13 (1/12)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
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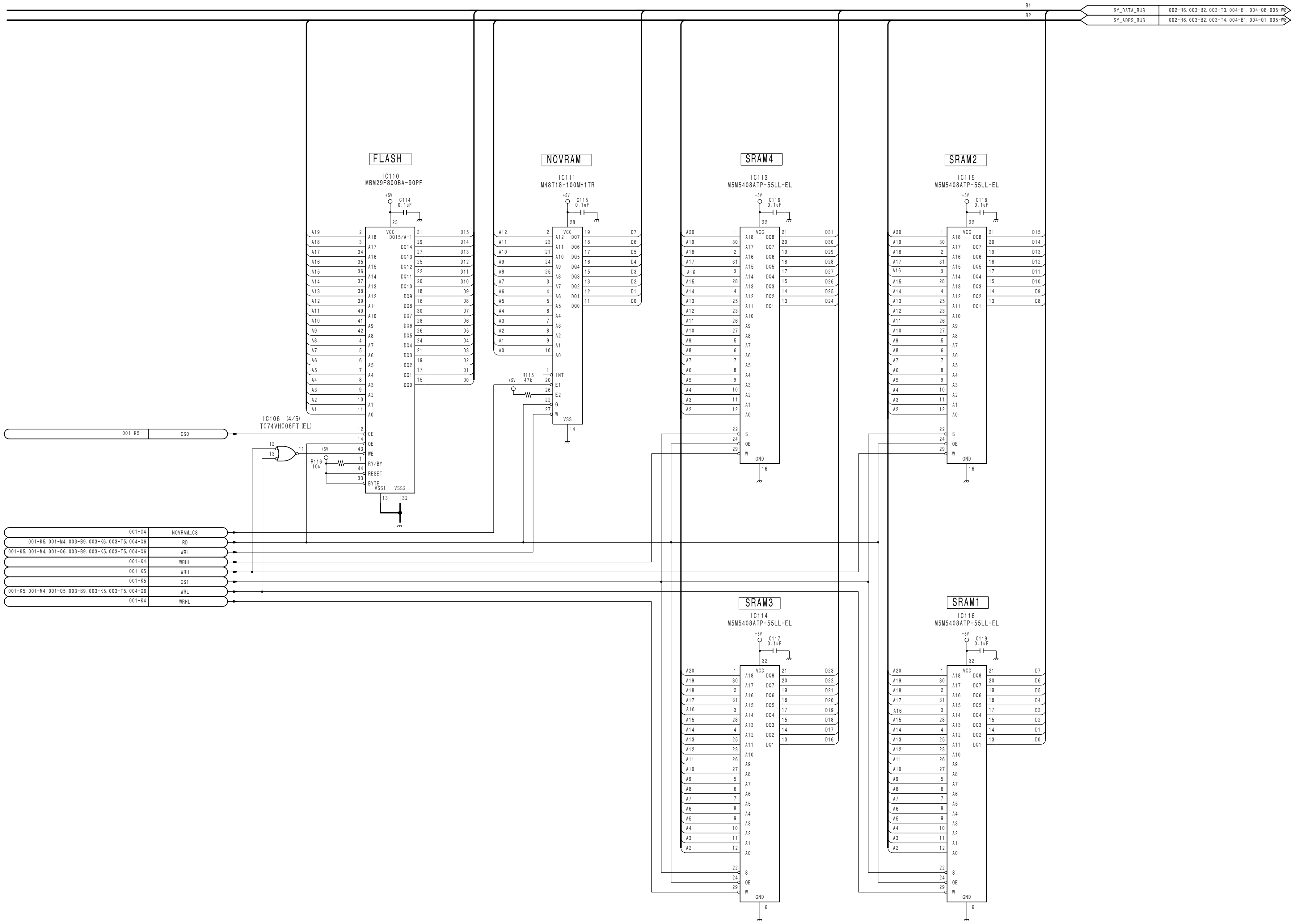
A
B
C
D
E
F
G
H
IC203 (1/2)
HD64F7045F28
CPU
IC101 (5/7) TC74VHC04FT (EL)
IC101 (1/7) TC74VHC04FT (EL)
IC103 M51958AFP600D
Q100 DTC114YKA-T146
S100
TP103
RESET
SYS_RESET
IC105 TC74VHC393FT (EL)
X100 13.5MHz
6.75MHz
13.5MHZ
105.5kHz
IC101 (2/7) TC74VHC04FT (EL)
SY_SV_WAIT
SIF_WAIT
SY_IF_WAIT
IC102 (1/3) TC74VHC21FT (EL)
FIFO_CLK
IC117 TC74VHC157FT (EL)
CF
REF
V/4
TP101
TP100
TP102
IC100 (1/7) TC74VHCT04AFT (EL)
IC100 (2/7) TC74VHCT04AFT (EL)
IC100 (4/7) TC74VHCT04AFT (EL)
IC100 (5/7) TC74VHCT04AFT (EL)
CN904
REF_FRAME_3.3V
REF_CF_3.3V
FRAME_SEL
CN902
ADV_FRAME_3.3V
ADV_CF_3.3V
IC101 (3/7) TC74VHC04FT (EL)
IC101 (4/7) TC74VHC04FT (EL)
V/4 PULSE
FRAME INT
V/4 INT
SY FRAME
SY CF
RB100
RB101
RB102
RB103
RB104
RB105
RB106
RB107
RB108
S101
IC100 (3/7) TC74VHCT04AFT (EL)
LTC_INT
SIO_INT
MIC_INT
MD2_SEL
MD3_SEL
FRAME_INT
SY_FRAME
WRHH
WRHL
WRH
WRL
RD
CS0
CS1
PROC_CS
IC108 TC74VHC138FT (EL)
SIF_CR_CS
LTC_CS
PIO_CS
LCD2_CS
IC101 (6/7) TC74VHC04FT (EL)
IC107 (3/5) TC74VHC32FT (EL)
IC107 (4/5) TC74VHC32FT (EL)
SIO-WR
SIO-RD
IC109 TC74VHC138FT (EL)
SY_SV_RAM_CS
SY_IF_RAM_CS
NOVRAM_CS
SIF_RAM_CS
IC118 (1/5) TC74VHC32FT (EL)
IC100 (6/7) TC74VHCT04AFT (EL)
IC118 (2/5) TC74VHC32FT (EL)
CARD_CS
IC106 (1/5) TC74VHC08FT (EL)
IC104 TC74VHC74FT (EL)
SYS CLK
IC107 (1/5) TC74VHC32FT (EL)
MSTB
IC106 (2/5) TC74VHC08FT (EL)
IC106 (3/5) TC74VHC08FT (EL)
WR2
RD2
IC107 (2/5) TC74VHC32FT (EL)
IC102 (2/3) TC74VHC21FT (EL)
IC118 (4/5) TC74VHC32FT (EL)
IC118 (3/5) TC74VHC32FT (EL)
IC118 (5/5) TC74VHC32FT (EL)
IC107 (5/5) TC74VHC32FT (EL)
IC106 (5/5) TC74VHC08FT (EL)
IC102 (3/3) TC74VHC21FT (EL)
IC101 (7/7) TC74VHC04FT (EL)
IC100 (7/7) TC74VHCT04AFT (EL)
E100

5-80

SST-13 (1/12)


B1
B2
SY_DATA_BUS
002-R6, 003-B2, 003-T3, 004-B1, 004-Q8, 005-W8
SY_ADRS_BUS
002-R6, 003-B2, 003-T4, 004-B1, 004-Q1, 005-W8
FLASH
IC110
MBM29F800BA-90PF
C114 0.1uF
NOVRAM
IC111
M48T18-100MH1TR
C115 0.1uF
R115 47k
SRAM4
IC113
M5M5408ATP-55LL-EL
C116 0.1uF
SRAM2
IC115
M5M5408ATP-55LL-EL
C118 0.1uF
SRAM3
IC114
M5M5408ATP-55LL-EL
C117 0.1uF
SRAM1
IC116
M5M5408ATP-55LL-EL
C119 0.1uF
IC106 (4/5)
TC74VHC08FT (EL)
R116 10k
+5V
001-K5 CS0
001-O4 NOVRAM_CS
001-K5, 001-M4, 003-B9, 003-K6, 003-T5, 004-Q6 RD
001-K5, 001-M4, 001-Q6, 003-B9, 003-K5, 003-T5, 004-Q6 WRL
001-K4 WRHH
001-K5 WRH
001-K5 CS1
001-K5, 001-M4, 001-Q5, 003-B9, 003-K5, 003-T5, 004-Q6 WRL
001-K4 WRHL

SST-13 (1/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_1

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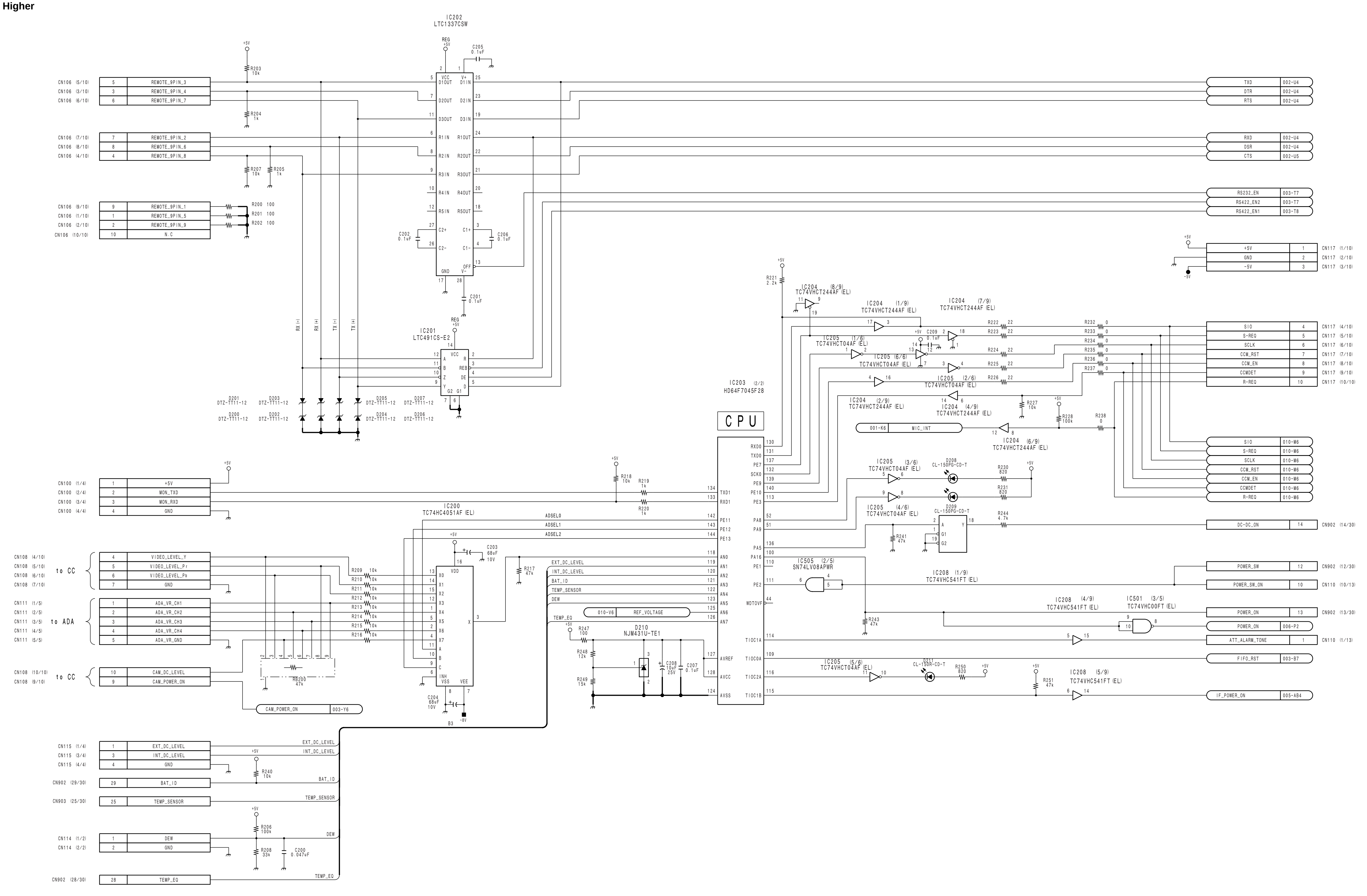
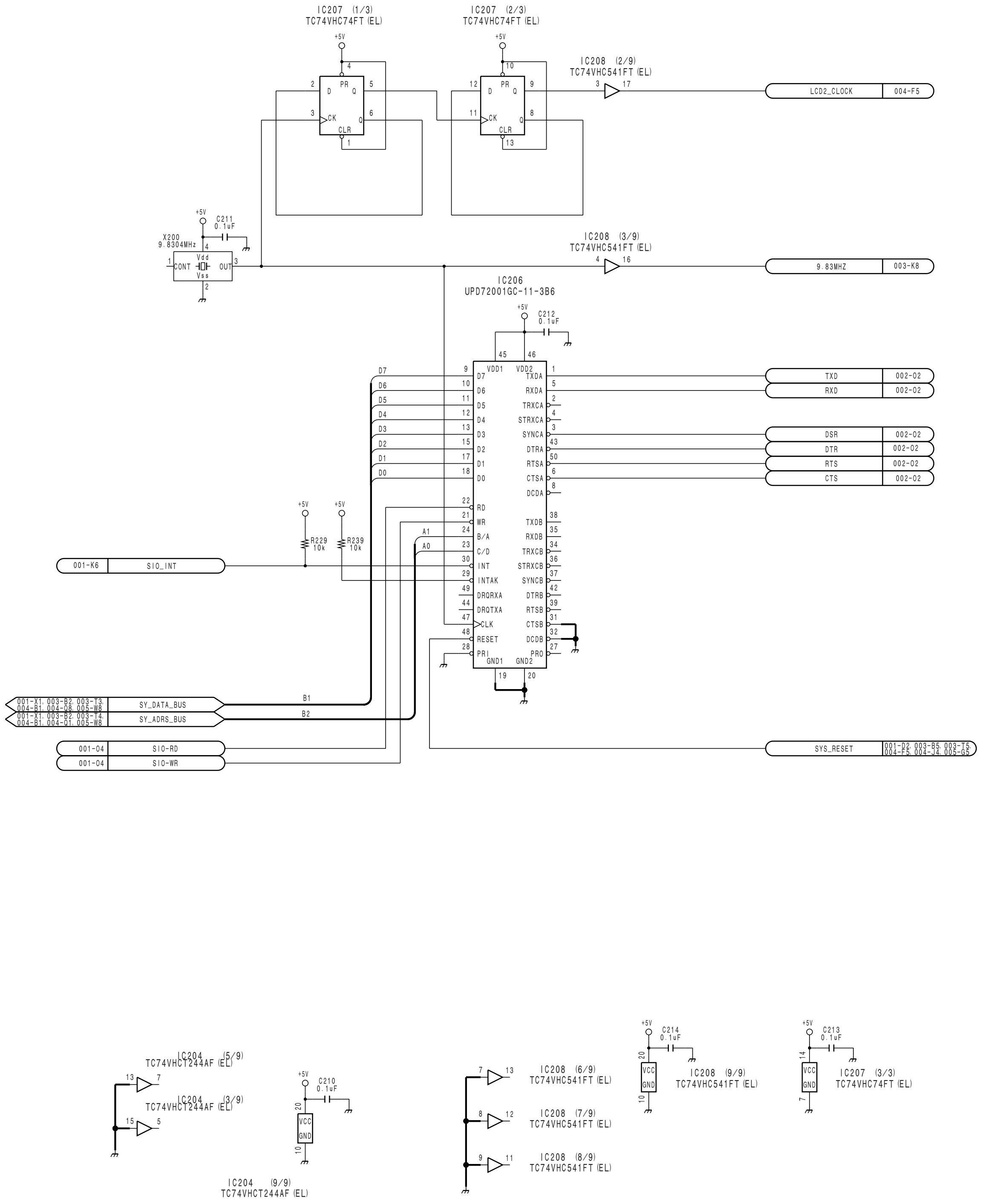
SST-13 (2/12)

SST-13 (2/12)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
2
3
4
5
IC202
LTC1337CSW
IC201
LTC491CS-E2
IC200
TC74HC4051AF (EL)
IC203
HD64F7045F28
CPU
IC204
TC74VHCT244AF (EL)
IC205
TC74VHCT04AF (EL)
IC208
TC74VHC541FT (EL)
IC505
SN74LV08APWR
IC501
TC74VHC00FT (EL)
D210
NJM431U-TE1
REMOTE_9PIN_3
REMOTE_9PIN_4
REMOTE_9PIN_7
REMOTE_9PIN_2
REMOTE_9PIN_6
REMOTE_9PIN_8
REMOTE_9PIN_1
REMOTE_9PIN_5
REMOTE_9PIN_9
N.C
MON_TXD
MON_RXD
to CC
VIDEO_LEVEL_Y
VIDEO_LEVEL_Pr
VIDEO_LEVEL_Pb
to ADA
ADA_VR_CH1
ADA_VR_CH2
ADA_VR_CH3
ADA_VR_CH4
ADA_VR_GND
CAM_DC_LEVEL
CAM_POWER_ON
EXT_DC_LEVEL
INT_DC_LEVEL
BAT_ID
TEMP_SENSOR
DEW
TEMP_EQ
TXD
DTR
RTS
RXD
DSR
CTS
RS232_EN
RS422_EN2
RS422_EN1
SIO
S-REQ
SCLK
CCM_RST
CCM_EN
CCMDET
R-REQ
MIC_INT
REF_VOLTAGE
DC-DC_ON
POWER_SW
POWER_SW_ON
POWER_ON
ATT_ALARM_TONE
FIFO_RST
IF_POWER_ON

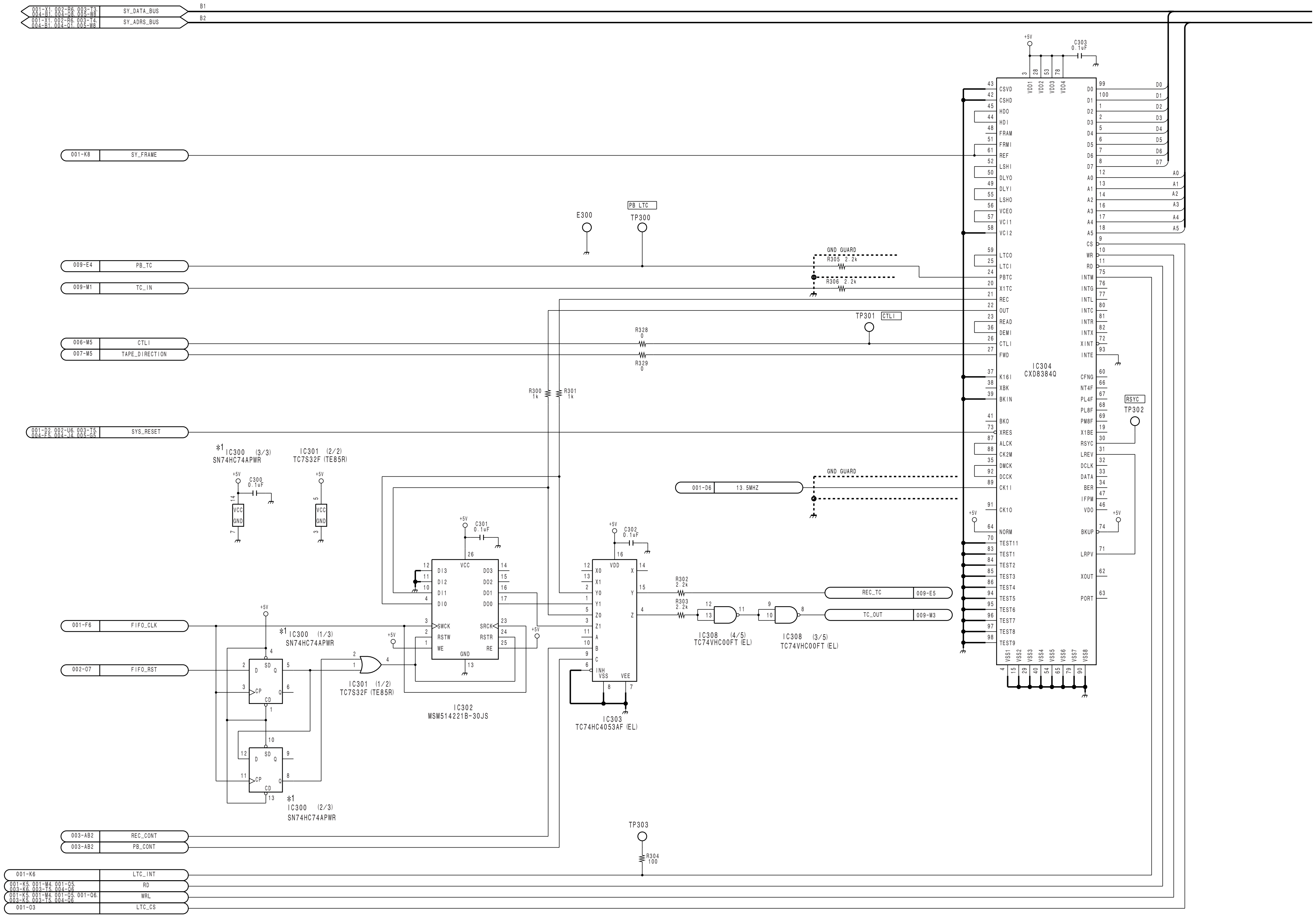

IC207 (1/3)
TC74VHC74FT (EL)
IC207 (2/3)
TC74VHC74FT (EL)
IC208 (2/9)
TC74VHC541FT (EL)
LCD2_CLOCK
004-F5
+5V
C211
0.1uF
X200
9.8304MHz
CONT
Vdd
Vss
OUT
IC208 (3/9)
TC74VHC541FT (EL)
9.83MHZ
003-K8
IC206
UPD72001GC-11-3B6
C212
0.1uF
VDD1
VDD2
D7
D6
D5
D4
D3
D2
D1
D0
TXDA
RXDA
TRXCA
STRXCA
SYNCA
DTRA
RTSA
CTSA
DCDA
RD
WR
B/A
C/D
INT
INTAK
DRQRXA
DRQTXA
CLK
RESET
PRI
GND1
GND2
TXDB
RXDB
TRXCB
STRXCB
SYNCB
DTRB
RTSB
CTSB
DCDB
PRO
TXD
RXD
DSR
DTR
RTS
CTS
002-02
A1
A0
R229
10k
R239
10k
001-K6
SIO_INT
001-X1, 003-B2, 003-T3,
004-B1, 004-Q8, 005-W8
SY_DATA_BUS
001-X1, 003-B2, 003-T4,
004-B1, 004-Q1, 005-W8
SY_ADRS_BUS
B1
B2
001-04
SIO-RD
001-04
SIO-WR
SYS_RESET
001-D2, 003-B5, 003-T5,
004-F5, 004-J4, 005-G5
IC204 (5/9)
TC74VHCT244AF (EL)
IC204 (3/9)
TC74VHCT244AF (EL)
C210
0.1uF
VCC
GND
IC204 (9/9)
TC74VHCT244AF (EL)
IC208 (6/9)
TC74VHC541FT (EL)
IC208 (7/9)
TC74VHC541FT (EL)
IC208 (8/9)
TC74VHC541FT (EL)
C214
0.1uF
IC208 (9/9)
TC74VHC541FT (EL)
C213
0.1uF
IC207 (3/3)
TC74VHC74FT (EL)

SST-13 (2/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_2

SST-13 (3/12)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
2
3
4
5
SY_DATA_BUS
SY_ADRS_BUS
B1
B2
SY_FRAME
PB_TC
TC_IN
CTLI
TAPE_DIRECTION
SYS_RESET
FIFO_CLK
FIFO_RST
REC_CONT
PB_CONT
LTC_INT
RD
WRL
LTC_CS
E300
PB_LTC
TP300
TP301
TP302
TP303
RSYC
GND GUARD
13.5MHZ
REC_TC
TC_OUT
IC304
CXD8384Q
IC300 (3/3)
SN74HC74APWR
IC301 (2/2)
TC7S32F (TE85R)
IC300 (1/3)
SN74HC74APWR
IC300 (2/3)
SN74HC74APWR
IC301 (1/2)
TC7S32F (TE85R)
IC302
MSM514221B-30JS
IC303
TC74HC4053AF (EL)
IC308 (4/5)
TC74VHC00FT (EL)
IC308 (3/5)
TC74VHC00FT (EL)
C300 0.1uF
C301 0.1uF
C302 0.1uF
C303 0.1uF
R300 1k
R301 1k
R302 2.2k
R303 2.2k
R304 100
R305 2.2k
R306 2.2k
R328 0
R329 0
+5V

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
✻1	IC300 SN74HCAPW-E05 → SN74HCAPWR	S/N30051~

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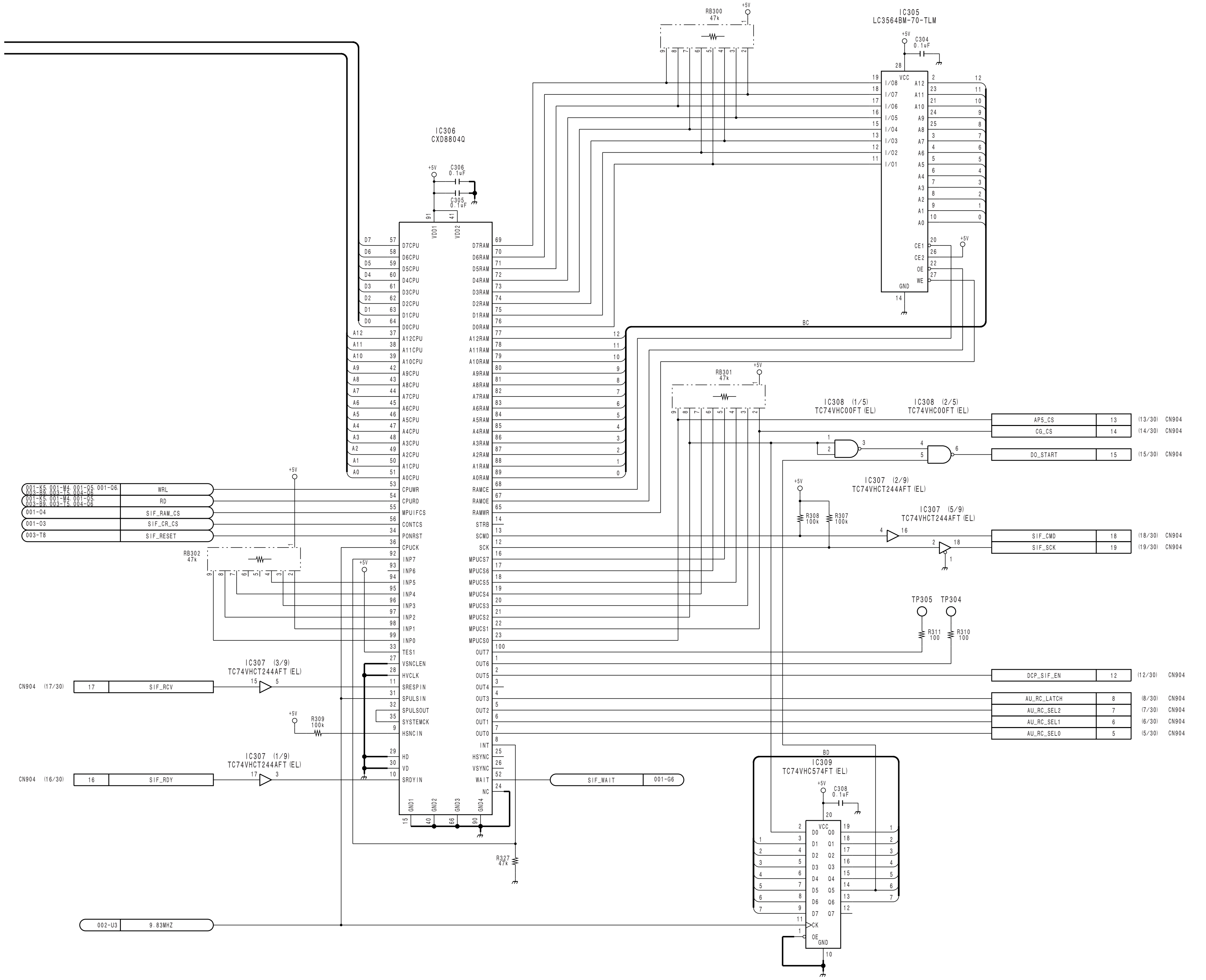
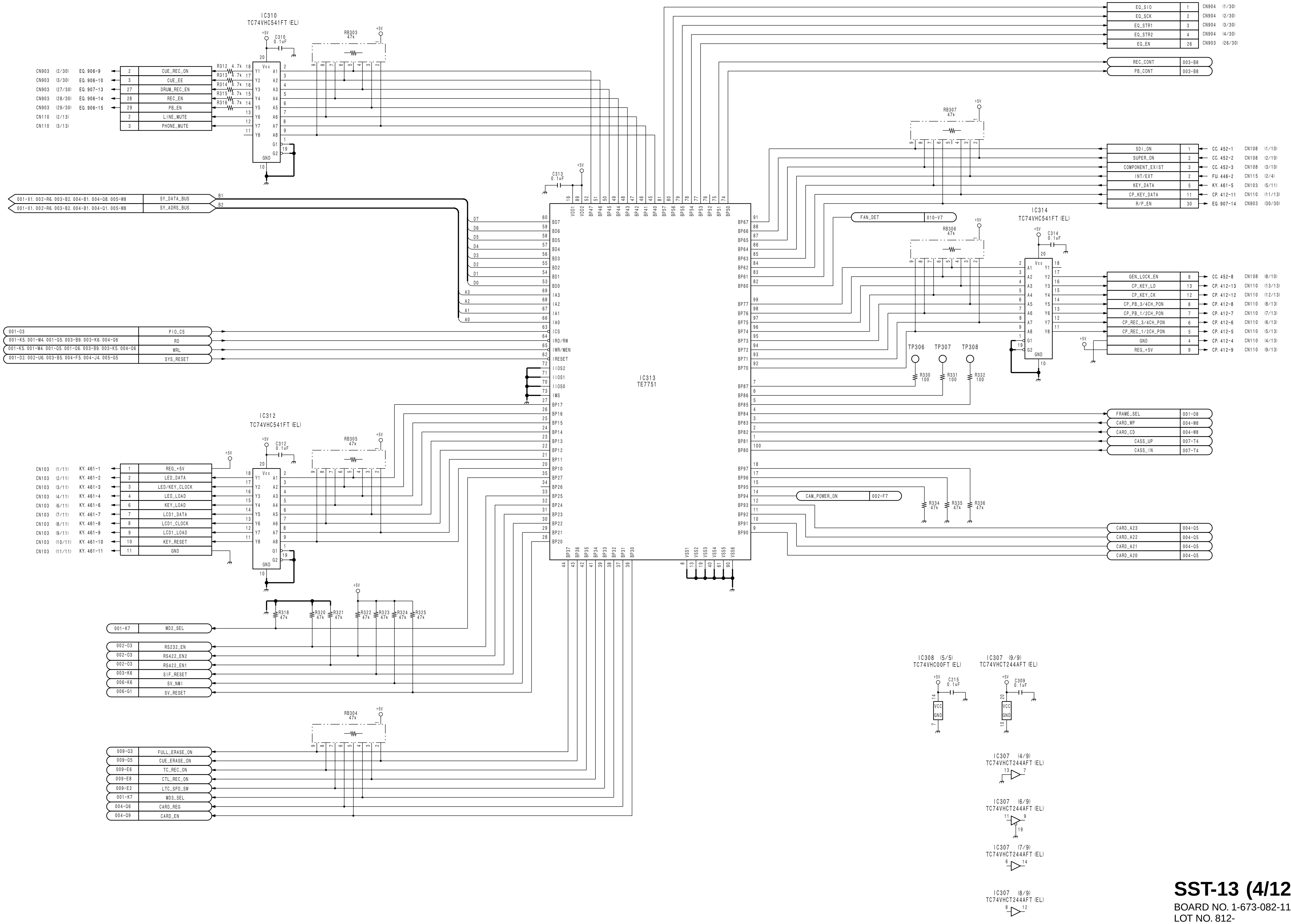
A B C D E F G H


IC305
LC3564BM-70-TLM
IC306
CXD8804Q
IC307 (2/9)
TC74VHCT244AFT (EL)
IC307 (5/9)
TC74VHCT244AFT (EL)
IC307 (3/9)
TC74VHCT244AFT (EL)
IC307 (1/9)
TC74VHCT244AFT (EL)
IC308 (1/5)
TC74VHC00FT (EL)
IC308 (2/5)
TC74VHC00FT (EL)
IC309
TC74VHC574FT (EL)
RB300 47k
RB301 47k
RB302 47k
C304 0.1uF
C305 0.1uF
C306 0.1uF
C308 0.1uF
R307 100k
R308 100k
R309 100k
R310 100
R311 100
R327 47k
TP305
TP304
+5V
WRL
RD
SIF_RAM_CS
SIF_CR_CS
SIF_RESET
SIF_RCV
SIF_RDY
SIF_WAIT
9.83MHZ
APS_CS
CG_CS
DO_START
SIF_CMD
SIF_SCK
DCP_SIF_EN
AU_RC_LATCH
AU_RC_SEL2
AU_RC_SEL1
AU_RC_SEL0
CN904
BC
BD
001-G6
002-U3
001-O4
001-O3
003-T8

SST-13 (3/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_3

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC310
TC74VHC541FT (EL)
C310 0.1uF
RB303 47k
CUE_REC_ON
CUE_EE
DRUM_REC_EN
REC_EN
PB_EN
LINE_MUTE
PHONE_MUTE
R312 4.7k
R313 4.7k
R314 4.7k
R315 4.7k
R316 4.7k
SY_DATA_BUS
SY_XDRS_BUS
PIO_CS
RD
WRL
SYS_RESET
C313 0.1uF
IC313
TE7751
IC312
TC74VHC541FT (EL)
C312 0.1uF
RB305 47k
REG_+5V
LED_DATA
LED/KEY_CLOCK
LED_LOAD
KEY_LOAD
LCD1_DATA
LCD1_CLOCK
LCD1_LOAD
KEY_RESET
GND
R318 47k
R320 47k
R321 47k
R322 47k
R323 47k
R324 47k
R325 47k
MD2_SEL
RS232_EN
RS422_EN2
RS422_EN1
SIF_RESET
SV_NMI
SV_RESET
RB304 47k
FULL_ERASE_ON
CUE_ERASE_ON
TC_REC_ON
CTL_REC_ON
LTC_SPD_SW
MD3_SEL
CARD_REG
CARD_EN
EQ_SIO
EQ_SCK
EQ_STR1
EQ_STR2
EQ_EN
REC_CONT
PB_CONT
RB307 47k
SDI_ON
SUPER_ON
COMPONENT_EXIST
INT/EXT
KEY_DATA
CP_KEY_DATA
R/P_EN
FAN_DET
RB306 47k
IC314
TC74VHC541FT (EL)
C314 0.1uF
GEN_LOCK_EN
CP_KEY_LD
CP_KEY_CK
CP_PB_3/4CH_PON
CP_PB_1/2CH_PON
CP_REC_3/4CH_PON
CP_REC_1/2CH_PON
GND
REG_+5V
TP306
TP307
TP308
R330 100
R331 100
R332 100
FRAME_SEL
CARD_WP
CARD_CD
CASS_UP
CASS_IN
CAM_POWER_ON
R334 47k
R335 47k
R336 47k
CARD_A23
CARD_A22
CARD_A21
CARD_A20
IC308 (5/5)
TC74VHC00FT (EL)
C215 0.1uF
IC307 (9/9)
TC74VHCT244AFT (EL)
C309 0.1uF
IC307 (4/9)
TC74VHCT244AFT (EL)
IC307 (6/9)
TC74VHCT244AFT (EL)
IC307 (7/9)
TC74VHCT244AFT (EL)
IC307 (8/9)
TC74VHCT244AFT (EL)
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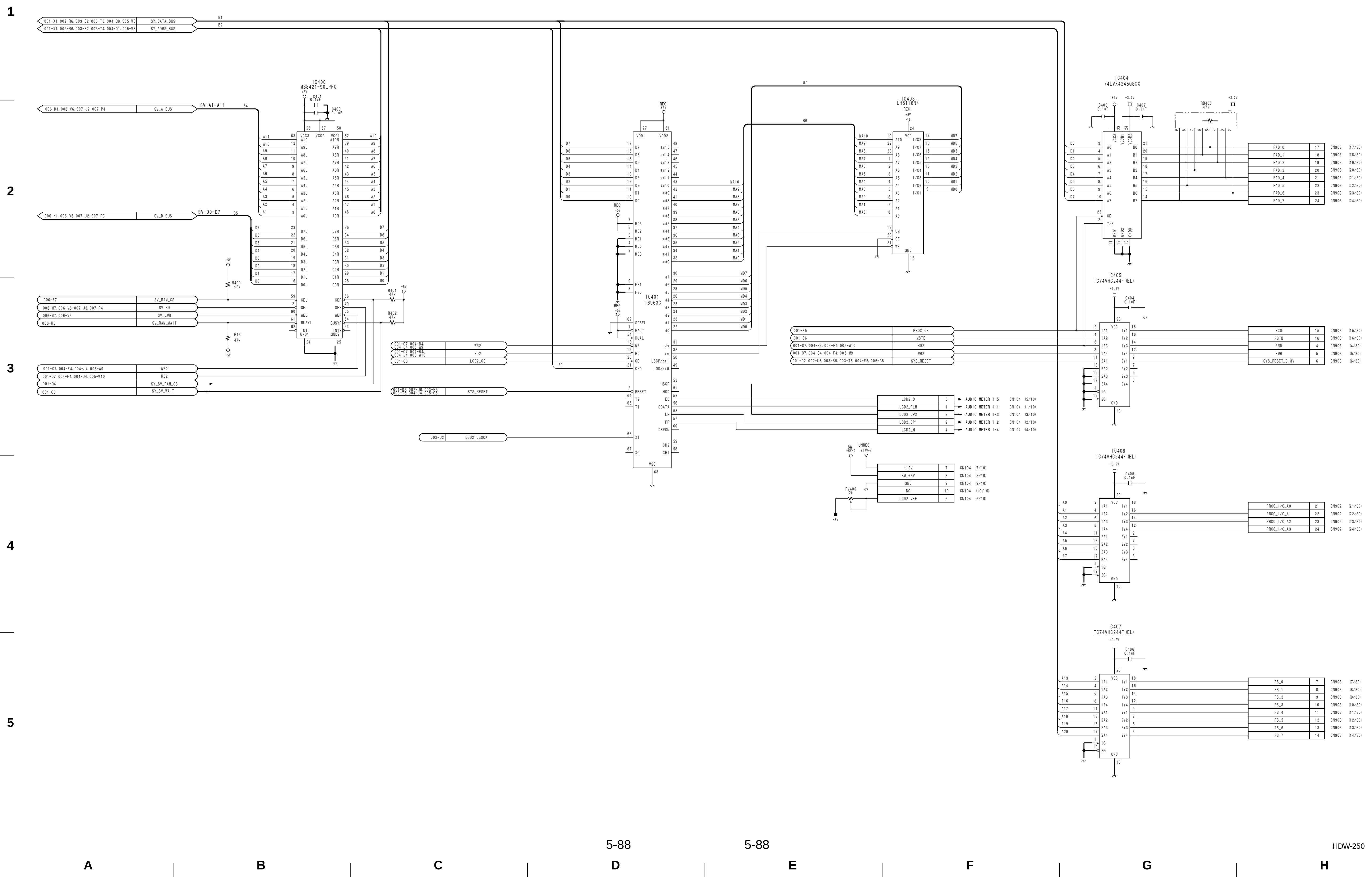
SST-13 (4/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_4

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
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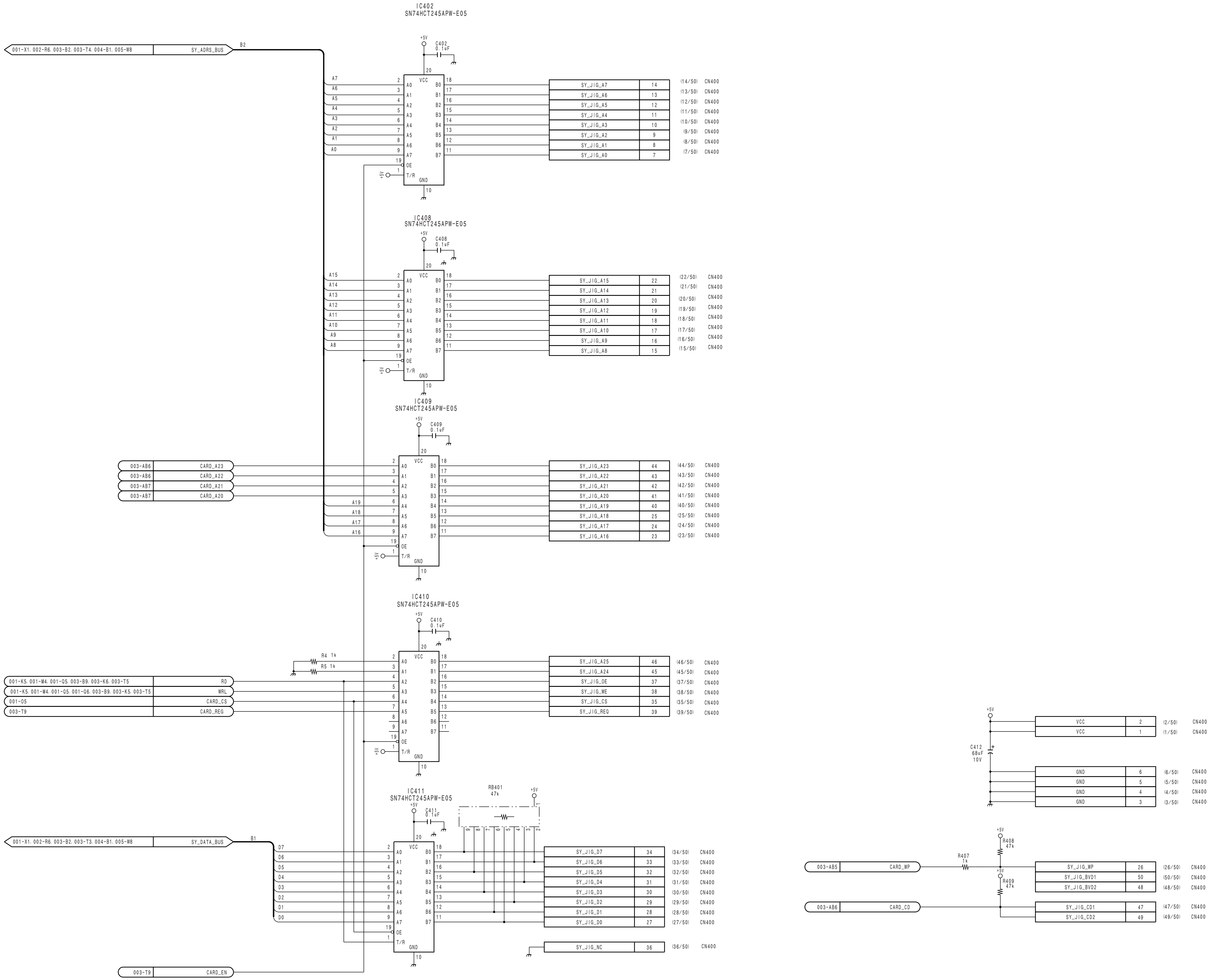
3
4
5
A
B
C
D
E
F
G
H
SY_DATA_BUS
SY_ADRS_BUS
SV_A-BUS
SV-A1~A11
SV_D-BUS
SV-D0~D7
IC400
MB8421-90LPFQ
C402 0.1uF
C400 0.1uF
R400 47k
R13 47k
R401 47k
R402 47k
SV_RAM_CS
SV_RD
SV_LWR
SV_RAM_WAIT
WR2
RD2
SY_SV_RAM_CS
SY_SV_WAIT
LCD2_CS
SYS_RESET
LCD2_CLOCK
IC401
T6963C
IC403
LH5116N4
IC404
74LVX4245QSCX
C403 0.1uF
C407 0.1uF
RB400 47k
+5V
+3.2V
REG
PAD_0
PAD_1
PAD_2
PAD_3
PAD_4
PAD_5
PAD_6
PAD_7
CN903
IC405
TC74VHC244F (EL)
C404 0.1uF
PROC_CS
MSTB
SYS_RESET_3.3V
PCS
PSTB
PRD
PWR
LCD2_D
LCD2_FLM
LCD2_CP2
LCD2_CP1
LCD2_M
AUDIO METER 1-5
AUDIO METER 1-1
AUDIO METER 1-3
AUDIO METER 1-2
AUDIO METER 1-4
CN104
+12V
SW_+5V
GND
NC
LCD2_VEE
RV400 2k
UNREG
-8V
IC406
TC74VHC244F (EL)
C405 0.1uF
PROC_I/O_A0
PROC_I/O_A1
PROC_I/O_A2
PROC_I/O_A3
CN902
IC407
TC74VHC244F (EL)
C406 0.1uF
PS_0
PS_1
PS_2
PS_3
PS_4
PS_5
PS_6
PS_7

SST-13 (5/12)


IC402
SN74HCT245APW-E05
C402 0.1uF
IC408
SN74HCT245APW-E05
C408 0.1uF
IC409
SN74HCT245APW-E05
C409 0.1uF
IC410
SN74HCT245APW-E05
C410 0.1uF
IC411
SN74HCT245APW-E05
C411 0.1uF
RB401 47k
R4 1k
R5 1k
C412 68uF 10V
R407 1k
R408 47k
R409 47k
+5V
VCC
GND
T/R
OE
001-X1, 002-R6, 003-B2, 003-T4, 004-B1, 005-W8
SY_ADRS_BUS
B2
001-X1, 002-R6, 003-B2, 003-T3, 004-B1, 005-W8
SY_DATA_BUS
B1
003-AB6 CARD_A23
003-AB6 CARD_A22
003-AB7 CARD_A21
003-AB7 CARD_A20
001-K5, 001-M4, 001-O5, 003-B9, 003-K6, 003-T5 RD
001-K5, 001-M4, 001-O5, 001-O6, 003-B9, 003-K5, 003-T5 WRL
001-O5 CARD_CS
003-T9 CARD_REG
003-T9 CARD_EN
003-AB5 CARD_WP
003-AB6 CARD_CD
SY_JIG_A7 14 (14/50) CN400
SY_JIG_A6 13 (13/50) CN400
SY_JIG_A5 12 (12/50) CN400
SY_JIG_A4 11 (11/50) CN400
SY_JIG_A3 10 (10/50) CN400
SY_JIG_A2 9 (9/50) CN400
SY_JIG_A1 8 (8/50) CN400
SY_JIG_A0 7 (7/50) CN400
SY_JIG_A15 22 (22/50) CN400
SY_JIG_A14 21 (21/50) CN400
SY_JIG_A13 20 (20/50) CN400
SY_JIG_A12 19 (19/50) CN400
SY_JIG_A11 18 (18/50) CN400
SY_JIG_A10 17 (17/50) CN400
SY_JIG_A9 16 (16/50) CN400
SY_JIG_A8 15 (15/50) CN400
SY_JIG_A23 44 (44/50) CN400
SY_JIG_A22 43 (43/50) CN400
SY_JIG_A21 42 (42/50) CN400
SY_JIG_A20 41 (41/50) CN400
SY_JIG_A19 40 (40/50) CN400
SY_JIG_A18 25 (25/50) CN400
SY_JIG_A17 24 (24/50) CN400
SY_JIG_A16 23 (23/50) CN400
SY_JIG_A25 46 (46/50) CN400
SY_JIG_A24 45 (45/50) CN400
SY_JIG_OE 37 (37/50) CN400
SY_JIG_WE 38 (38/50) CN400
SY_JIG_CS 35 (35/50) CN400
SY_JIG_REG 39 (39/50) CN400
SY_JIG_D7 34 (34/50) CN400
SY_JIG_D6 33 (33/50) CN400
SY_JIG_D5 32 (32/50) CN400
SY_JIG_D4 31 (31/50) CN400
SY_JIG_D3 30 (30/50) CN400
SY_JIG_D2 29 (29/50) CN400
SY_JIG_D1 28 (28/50) CN400
SY_JIG_D0 27 (27/50) CN400
SY_JIG_NC 36 (36/50) CN400
VCC 2 (2/50) CN400
VCC 1 (1/50) CN400
GND 6 (6/50) CN400
GND 5 (5/50) CN400
GND 4 (4/50) CN400
GND 3 (3/50) CN400
SY_JIG_WP 26 (26/50) CN400
SY_JIG_BVD1 50 (50/50) CN400
SY_JIG_BVD2 48 (48/50) CN400
SY_JIG_CD1 47 (47/50) CN400
SY_JIG_CD2 49 (49/50) CN400

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SST-13 (5/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_5

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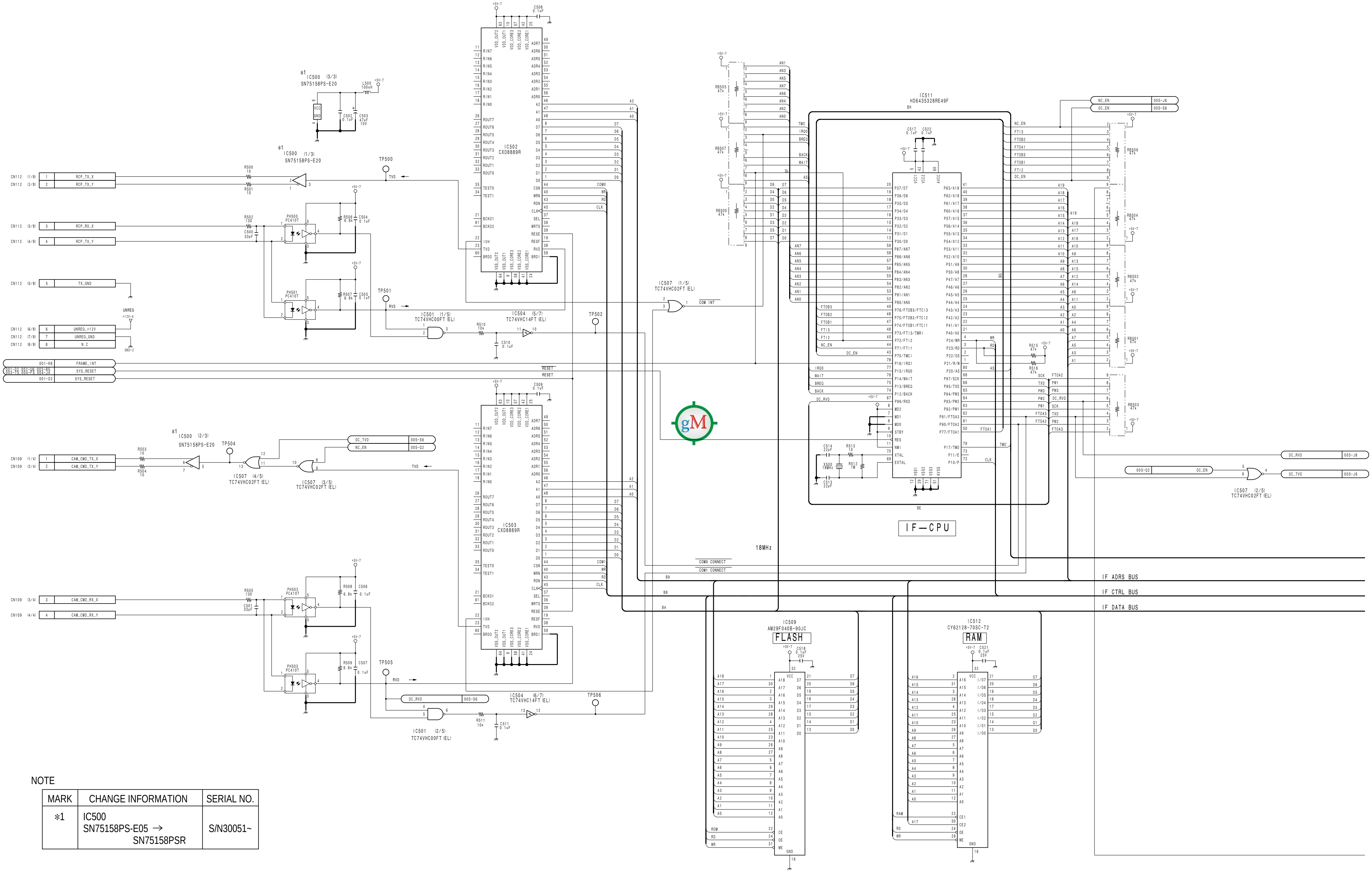
I J K L M N O P

SST-13 (6/12)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

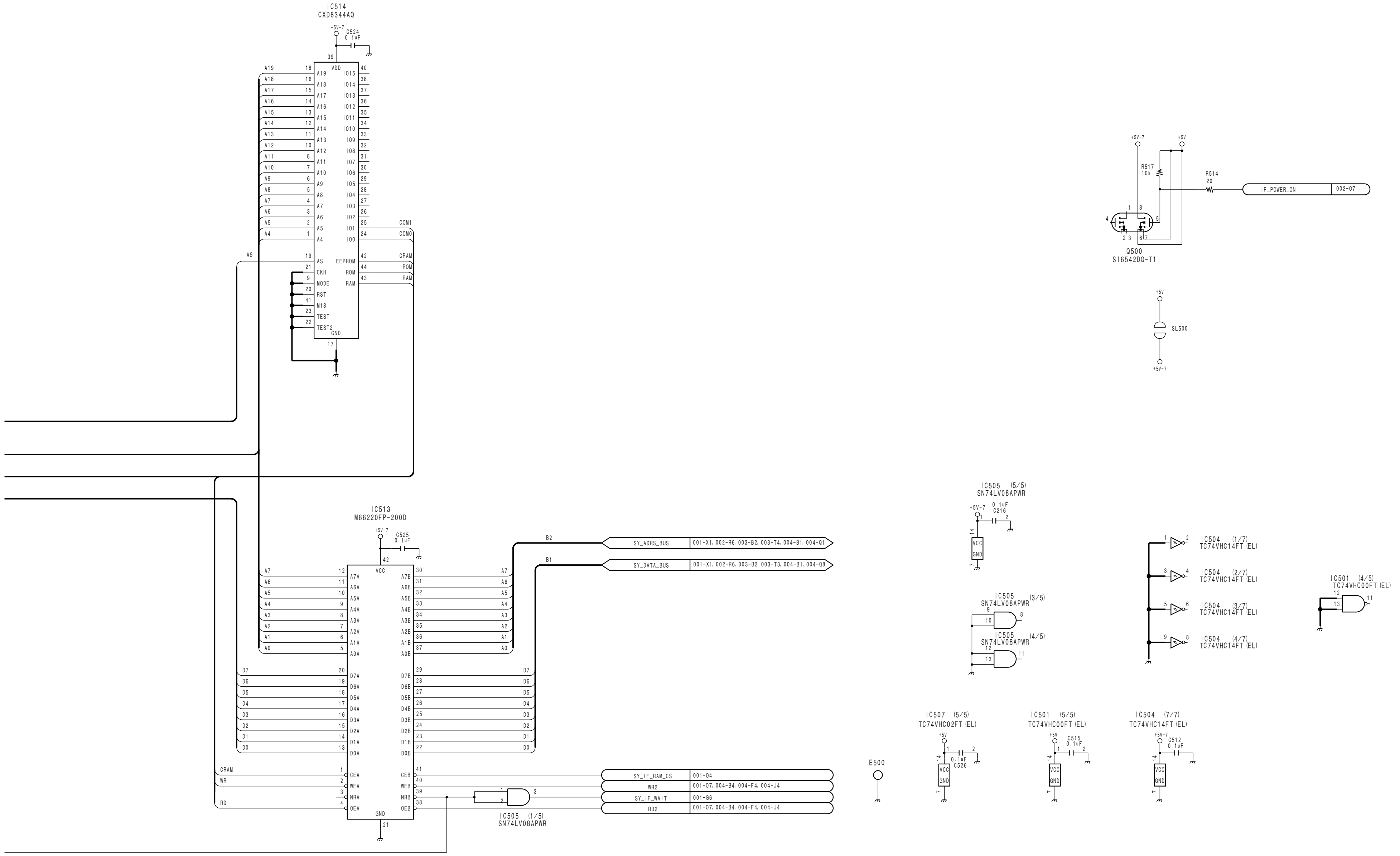


*1 IC500 (3/3) SN75158PS-E20
*1 IC500 (1/3) SN75158PS-E20
*1 IC500 (2/3) SN75158PS-E20
IC502 CXD8889R
IC503 CXD8889R
IC511 HD6435328RE49F
IF-CPU
IC507 (1/5) TC74VHC02FT (EL)
IC507 (2/5) TC74VHC02FT (EL)
IC507 (3/5) TC74VHC02FT (EL)
IC507 (4/5) TC74VHC02FT (EL)
IC501 (1/5) TC74VHC00FT (EL)
IC501 (2/5) TC74VHC00FT (EL)
IC504 (5/7) TC74VHC14FT (EL)
IC504 (6/7) TC74VHC14FT (EL)
PH500 PC410T
PH501 PC410T
PH502 PC410T
PH503 PC410T
IC509 AM29F040B-90JC
FLASH
IC512 CY62128-70SC-T2
RAM
TP500
TP501
TP502
TP504
TP505
TP506
18MHz
IF ADRS BUS
IF CTRL BUS
IF DATA BUS
CN112 (1/8) RCP_TX_X
CN112 (2/8) RCP_TX_Y
CN112 (3/8) RCP_RX_X
CN112 (4/8) RCP_RX_Y
CN112 (5/8) TX_GND
CN112 (6/8) UNREG_+12V
CN112 (7/8) UNREG_GND
CN112 (8/8) N.C
FRAME_INT
SYS_RESET
CN109 (1/4) CAM_CMD_TX_X
CN109 (2/4) CAM_CMD_TX_Y
CN109 (3/4) CAM_CMD_RX_X
CN109 (4/4) CAM_CMD_RX_Y
COM0 CONNECT
COM1 CONNECT
NC_EN
DC_EN
DC_TVD
DC_RVD

NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC500 SN75158PS-E05 → SN75158PSR	S/N30051~

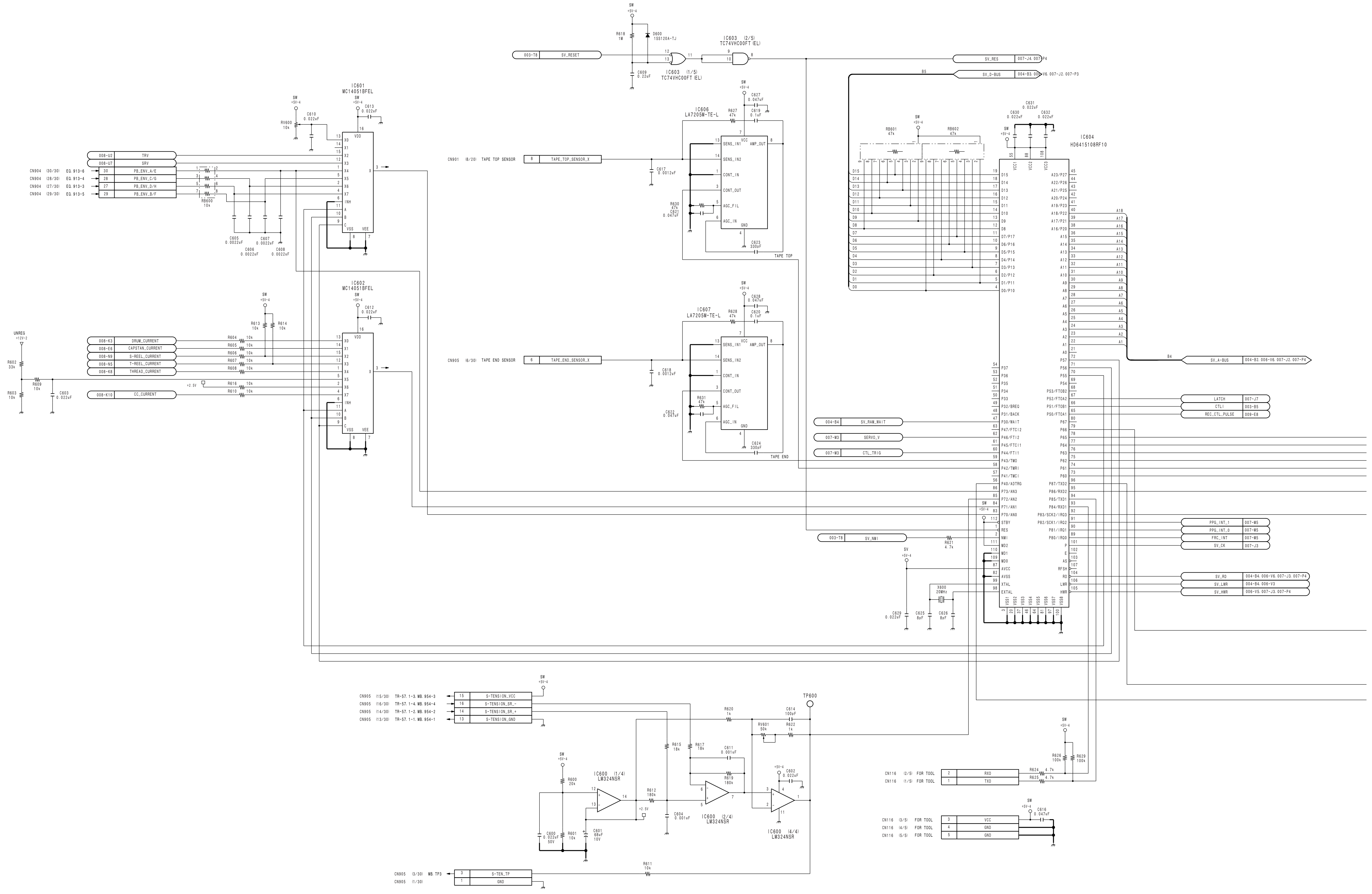
5-90


IC514
CXD8344AQ
+5V-7
C524
0.1uF
VDD
GND
A19 A18 A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4
IO15 IO14 IO13 IO12 IO11 IO10 IO9 IO8 IO7 IO6 IO5 IO4 IO3 IO2 IO1 IO0
AS CKH MODE RST M18 TEST TEST2
EEPROM ROM RAM
COM1 COM0 CRAM ROM RAM
IC513
M66220FP-200D
+5V-7
C525
0.1uF
VCC
GND
A7A A6A A5A A4A A3A A2A A1A A0A
D7A D6A D5A D4A D3A D2A D1A D0A
CEA WEA NRA OEA
A7B A6B A5B A4B A3B A2B A1B A0B
D7B D6B D5B D4B D3B D2B D1B D0B
CEB WEB NRB OEB
A7 A6 A5 A4 A3 A2 A1 A0
D7 D6 D5 D4 D3 D2 D1 D0
CRAM
WR
RD
B2
B1
SY_ADRS_BUS
001-X1, 002-R6, 003-B2, 003-T4, 004-B1, 004-Q1
SY_DATA_BUS
001-X1, 002-R6, 003-B2, 003-T3, 004-B1, 004-Q8
SY_IF_RAM_CS
001-O4
WR2
001-O7, 004-B4, 004-F4, 004-J4
SY_IF_WAIT
001-G6
RD2
001-O7, 004-B4, 004-F4, 004-J4
IC505 (1/5)
SN74LV08APWR
E500
+5V-7
+5V
R517
10k
R514
20
IF_POWER_ON
002-07
Q500
SI6542DQ-T1
+5V
SL500
+5V-7
IC505 (5/5)
SN74LV08APWR
+5V-7
0.1uF
C216
VCC
GND
IC505 (3/5)
SN74LV08APWR
IC505 (4/5)
SN74LV08APWR
IC504 (1/7)
TC74VHC14FT (EL)
IC504 (2/7)
TC74VHC14FT (EL)
IC504 (3/7)
TC74VHC14FT (EL)
IC504 (4/7)
TC74VHC14FT (EL)
IC501 (4/5)
TC74VHC00FT (EL)
IC507 (5/5)
TC74VHC02FT (EL)
+5V
0.1uF
C526
IC501 (5/5)
TC74VHC00FT (EL)
+5V
C515
0.1uF
IC504 (7/7)
TC74VHC14FT (EL)
+5V-7
C512
0.1uF

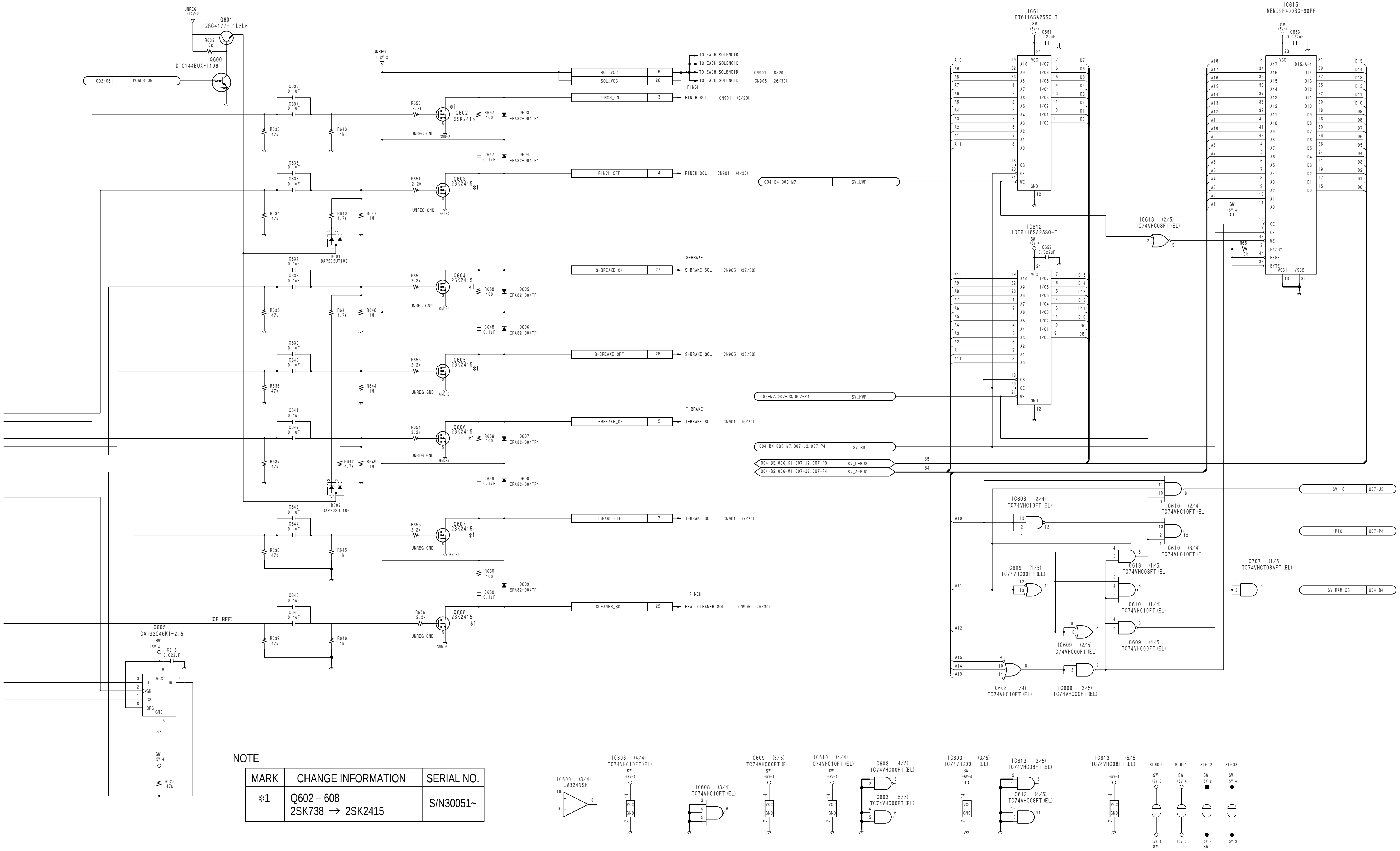
SST-13 (6/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_6

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC601 MC14051BFEL
IC602 MC14051BFEL
IC603 (2/5) TC74VHC00FT(EL)
IC603 (1/5) TC74VHC00FT(EL)
IC606 LA7205M-TE-L
IC607 LA7205M-TE-L
IC604 HD6415108RF10
IC600 (1/4) LM324NSR
IC600 (2/4) LM324NSR
IC600 (4/4) LM324NSR
SV_RESET
SV_RES
SV_D-BUS
SV_A-BUS
TAPE_TOP_SENSOR_X
TAPE_END_SENSOR_X
TRV
SRV
PB_ENV_A/E
PB_ENV_C/G
PB_ENV_D/H
PB_ENV_B/F
DRUM_CURRENT
CAPSTAN_CURRENT
S-REEL_CURRENT
T-REEL_CURRENT
THREAD_CURRENT
CC_CURRENT
SV_RAM_WAIT
SERVO_V
CTL_TRIG
SV_NMI
LATCH
CTL1
REC_CTL_PULSE
PPG_INT_1
PPG_INT_0
FRC_INT
SV_CK
SV_RD
SV_LWR
SV_HWR
S-TENSION_VCC
S-TENSION_SR_-
S-TENSION_SR_+
S-TENSION_GND
S-TEN_TP
GND
RXD
TXD
VCC
TP600
X600 20MHz
1
2
3
4
5
A
B
C
D
E
F
G
H

SST-13 (7/12)


UNREG +12V-2
Q601 2SC4177-T1L5L6
R632 10k
Q600 DTC144EUA-T106
002-06 POWER_ON
UNREG +12V-2
C633 0.1uF
C634 0.1uF
R633 47k
R643 1M
R650 2.2k
Q602 2SK2415 ⁎1
R657 100
D603 ERA82-004TP1
UNREG GND
GND-2
C647 0.1uF
D604 ERA82-004TP1
SOL_VCC 6
SOL_VCC 26
TO EACH SOLENOID
CN901 (6/20)
CN905 (26/30)
PINCH
PINCH_ON 3
PINCH SOL. CN901 (3/20)
PINCH_OFF 4
PINCH SOL. CN901 (4/20)
C635 0.1uF
C636 0.1uF
R634 47k
R640 4.7k
R647 1M
D601 DAP202UT106
R651 2.2k
Q603 2SK2415 ⁎1
C637 0.1uF
C638 0.1uF
R635 47k
R641 4.7k
R648 1M
R652 2.2k
Q604 2SK2415 ⁎1
R658 100
D605 ERA82-004TP1
C648 0.1uF
D606 ERA82-004TP1
S-BRAKE
S-BREAKE_ON 27
S-BRAKE SOL. CN905 (27/30)
S-BREAKE_OFF 28
S-BRAKE SOL. CN905 (28/30)
C639 0.1uF
C640 0.1uF
R636 47k
R644 1M
R653 2.2k
Q605 2SK2415 ⁎1
T-BRAKE
T-BREAKE_ON 5
T-BRAKE SOL. CN901 (5/20)
C641 0.1uF
C642 0.1uF
R637 47k
R642 4.7k
R649 1M
D602 DAP202UT106
R654 2.2k
Q606 2SK2415 ⁎1
R659 100
D607 ERA82-004TP1
C649 0.1uF
D608 ERA82-004TP1
TBRAKE_OFF 7
T-BRAKE SOL. CN901 (7/20)
C643 0.1uF
C644 0.1uF
R638 47k
R645 1M
R655 2.2k
Q607 2SK2415 ⁎1
R660 100
C650 0.1uF
D609 ERA82-004TP1
PINCH
CLEANER_SOL 25
HEAD CLEANER SOL. CN905 (25/30)
(CF REF)
C645 0.1uF
C646 0.1uF
R639 47k
R646 1M
R656 2.2k
Q608 2SK2415 ⁎1
IC605 CAT93C46KI-2.5
SW +5V-4
C615 0.022uF
DI VCC DO SK CS ORG GND
SW +5V-4
R623 47k
IC611 IDT6116SA25SO-T
SW +5V-4
C651 0.022uF
IC612 IDT6116SA25SO-T
C652 0.022uF
A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A11
A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A0
I/O7 I/O6 I/O5 I/O4 I/O3 I/O2 I/O1 I/O0
D7 D6 D5 D4 D3 D2 D1 D0
D15 D14 D13 D12 D11 D10 D9 D8
CS OE WE GND
004-B4, 006-M7 SV_LWR
006-M7, 007-J3, 007-P4 SV_HWR
004-B4, 006-M7, 007-J3, 007-P4 SV_RD
004-B3, 006-K1, 007-J2, 007-P3 SV_D-BUS
004-B2, 006-M4, 007-J2, 007-P4 SV_A-BUS
B5
B4
IC613 (2/5) TC74VHC08FT (EL)
IC615 MBM29F400BC-90PF
SW +5V-4
C653 0.022uF
A18 A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1
D15/A-1 D14 D13 D12 D11 D10 D9 D8 D7 D6 D5 D4 D3 D2 D1 D0
CE OE WE RY/BY RESET BYTE VSS1 VSS2
R661 10k
IC608 (2/4) TC74VHC10FT (EL)
IC610 (2/4) TC74VHC10FT (EL)
IC610 (3/4) TC74VHC10FT (EL)
IC613 (1/5) TC74VHC08FT (EL)
IC609 (1/5) TC74VHC00FT (EL)
IC610 (1/4) TC74VHC10FT (EL)
IC609 (2/5) TC74VHC00FT (EL)
IC609 (4/5) TC74VHC00FT (EL)
IC608 (1/4) TC74VHC10FT (EL)
IC609 (3/5) TC74VHC00FT (EL)
IC707 (1/5) TC74VHCT08AFT (EL)
A10 A11 A12 A15 A14 A13
SV_IC 007-J3
PIO 007-P4
SV_RAM_CS 004-B4
IC600 (3/4) LM324NSR
IC608 (4/4) TC74VHC10FT (EL)
IC608 (3/4) TC74VHC10FT (EL)
IC609 (5/5) TC74VHC00FT (EL)
IC610 (4/4) TC74VHC10FT (EL)
IC603 (4/5) TC74VHC00FT (EL)
IC603 (5/5) TC74VHC00FT (EL)
IC603 (3/5) TC74VHC00FT (EL)
IC613 (3/5) TC74VHC08FT (EL)
IC613 (4/5) TC74VHC08FT (EL)
IC613 (5/5) TC74VHC08FT (EL)
VCC GND
SL600 SW +5V-2 +5V-4 SW
SL601 SW +5V-4 +5V-3
SL602 SW -8V-2 -5V-4 SW
SL603 SW -5V-4 -5V-3
1 2 3 4 5

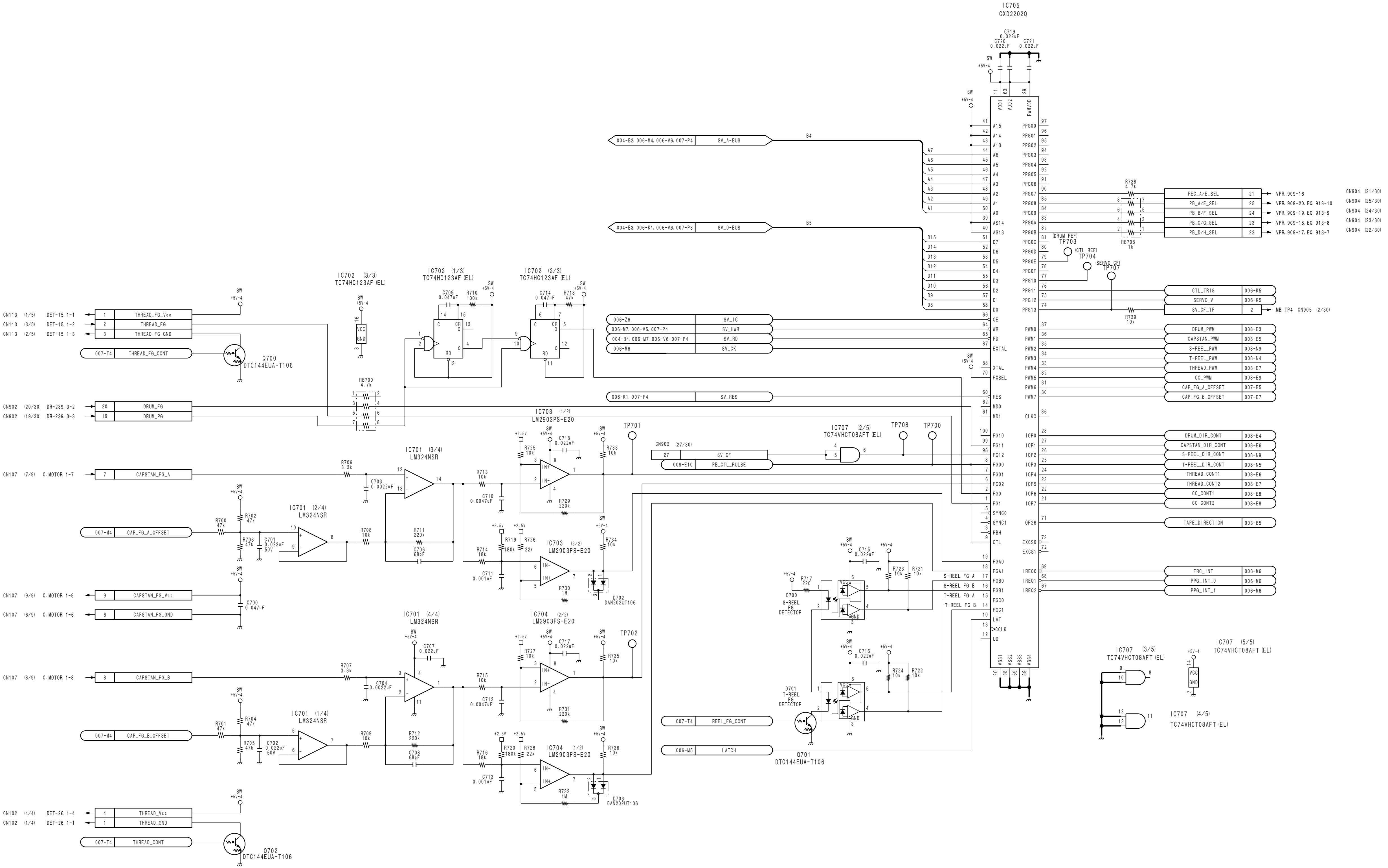
NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
⁎1	Q602 – 608 2SK738 → 2SK2415	S/N30051~

SST-13 (7/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_7

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


IC705
CXD2202Q
C719 0.022uF
C720 0.022uF
C721 0.022uF
SW +5V-4
VDD1
VDD2
PMWVDD
004-B2, 006-M4, 006-V6, 007-P4
SV_A-BUS
B4
004-B3, 006-K1, 006-V6, 007-P3
SV_D-BUS
B5
A15
A14
A13
A6
A5
A4
A3
A2
A1
A0
AS14
AS13
D7
D6
D5
D4
D3
D2
D1
D0
CE
WR
RD
EXTAL
XTAL
FXSEL
RES
MD0
MD1
FG10
FG11
FG12
FG00
FG01
FG02
FG0
FG1
SYNC0
SYNC1
PBH
CTL
FGA0
FGA1
FGB0
FGB1
FGC0
FGC1
LAT
CCLK
UD
VSS1
VSS2
VSS3
VSS4
PPG00
PPG01
PPG02
PPG03
PPG04
PPG05
PPG06
PPG07
PPG08
PPG09
PPG0A
PPG0B
PPG0C
PPG0D
PPG0E
PPG0F
PPG10
PPG11
PPG12
PPG13
PWM0
PWM1
PWM2
PWM3
PWM4
PWM5
PWM6
PWM7
CLKO
IOP0
IOP1
IOP2
IOP3
IOP4
IOP5
IOP6
IOP7
OP26
EXCS0
EXCS1
IREQ0
IREQ1
IREQ2
R738 4.7k
RB708 1k
REC_A/E_SEL 21 VPR, 909-16 CN904 (21/30)
PB_A/E_SEL 25 VPR, 909-20, EQ, 913-10 CN904 (25/30)
PB_B/F_SEL 24 VPR, 909-19, EQ, 913-9 CN904 (24/30)
PB_C/G_SEL 23 VPR, 909-18, EQ, 913-8 CN904 (23/30)
PB_D/H_SEL 22 VPR, 909-17, EQ, 913-7 CN904 (22/30)
(DRUM REF) TP703
(CTL REF) TP704
(SERVO CF) TP707
CTL_TRIG 006-K5
SERVO_V 006-K5
SV_CF_TP 2 MB, TP4 CN905 (2/30)
R739 10k
DRUM_PWM 008-E3
CAPSTAN_PWM 008-E5
S-REEL_PWM 008-N9
T-REEL_PWM 008-N4
THREAD_PWM 008-E7
CC_PWM 008-E9
CAP_FG_A_OFFSET 007-E5
CAP_FG_B_OFFSET 007-E7
DRUM_DIR_CONT 008-E4
CAPSTAN_DIR_CONT 008-E6
S-REEL_DIR_CONT 008-N9
T-REEL_DIR_CONT 008-N5
THREAD_CONT1 008-E6
THREAD_CONT2 008-E7
CC_CONT1 008-E8
CC_CONT2 008-E8
TAPE_DIRECTION 003-B5
FRC_INT 006-W6
PPG_INT_0 006-W6
PPG_INT_1 006-W6
006-Z6 SV_IC
006-W7, 006-V5, 007-P4 SV_HWR
004-B4, 006-W7, 006-V6, 007-P4 SV_RD
006-M6 SV_CK
006-K1, 007-P4 SV_RES
CN902 (27/30) 27 SV_CF
009-E10 PB_CTL_PULSE
IC707 (2/5) TC74VHCT08AFT (EL)
TP708
TP700
TP701
TP702
IC702 (3/3) TC74HC123AF (EL)
IC702 (1/3) TC74HC123AF (EL)
IC702 (2/3) TC74HC123AF (EL)
C709 0.047uF
R710 100k
C714 0.047uF
R718 47k
RB700 4.7k
CN113 (1/5) DET-15, 1-1 1 THREAD_FG_Vcc
CN113 (3/5) DET-15, 1-2 2 THREAD_FG
CN113 (2/5) DET-15, 1-3 3 THREAD_FG_GND
007-T4 THREAD_FG_CONT
Q700 DTC144EUA-T106
CN902 (20/30) DR-239, 3-2 20 DRUM_FG
CN902 (19/30) DR-239, 3-3 19 DRUM_PG
IC703 (1/2) LM2903PS-E20
IC703 (2/2) LM2903PS-E20
IC701 (3/4) LM324NSR
IC701 (2/4) LM324NSR
IC701 (4/4) LM324NSR
IC701 (1/4) LM324NSR
IC704 (2/2) LM2903PS-E20
IC704 (1/2) LM2903PS-E20
CN107 (7/9) C.MOTOR 1-7 7 CAPSTAN_FG_A
007-M4 CAP_FG_A_OFFSET
CN107 (9/9) C.MOTOR 1-9 9 CAPSTAN_FG_Vcc
CN107 (6/9) C.MOTOR 1-6 6 CAPSTAN_FG_GND
C700 0.047uF
CN107 (8/9) C.MOTOR 1-8 8 CAPSTAN_FG_B
007-M4 CAP_FG_B_OFFSET
CN102 (4/4) DET-26, 1-4 4 THREAD_Vcc
CN102 (1/4) DET-26, 1-1 1 THREAD_GND
007-T4 THREAD_CONT
Q702 DTC144EUA-T106
R706 3.3k
C703 0.0022uF
R713 10k
C710 0.0047uF
R725 10k
C718 0.022uF
R733 10k
R729 220k
R700 47k
R702 47k
R703 47k
C701 0.022uF 50V
R708 10k
R711 220k
C705 68pF
R714 18k
R719 180k
R726 22k
C711 0.001uF
R734 10k
R730 1M
D702 DAN202UT106
R707 3.3k
C704 0.0022uF
C707 0.022uF
R715 10k
C712 0.0047uF
R727 10k
C717 0.022uF
R735 10k
R731 220k
R701 47k
R704 47k
R705 47k
C702 0.022uF 50V
R709 10k
R712 220k
C708 68pF
R716 18k
R720 180k
R728 22k
C713 0.001uF
R736 10k
R732 1M
D703 DAN202UT106
+2.5V
R717 220
D700 S-REEL FG DETECTOR
C715 0.022uF
R723 10k
R721 10k
S-REEL FG A
S-REEL FG B
T-REEL FG A
T-REEL FG B
D701 T-REEL FG DETECTOR
C716 0.022uF
R724 10k
R722 10k
007-T4 REEL_FG_CONT
Q701 DTC144EUA-T106
006-M5 LATCH
IC707 (3/5) TC74VHCT08AFT (EL)
IC707 (5/5) TC74VHCT08AFT (EL)
IC707 (4/5) TC74VHCT08AFT (EL)
1
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4
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A
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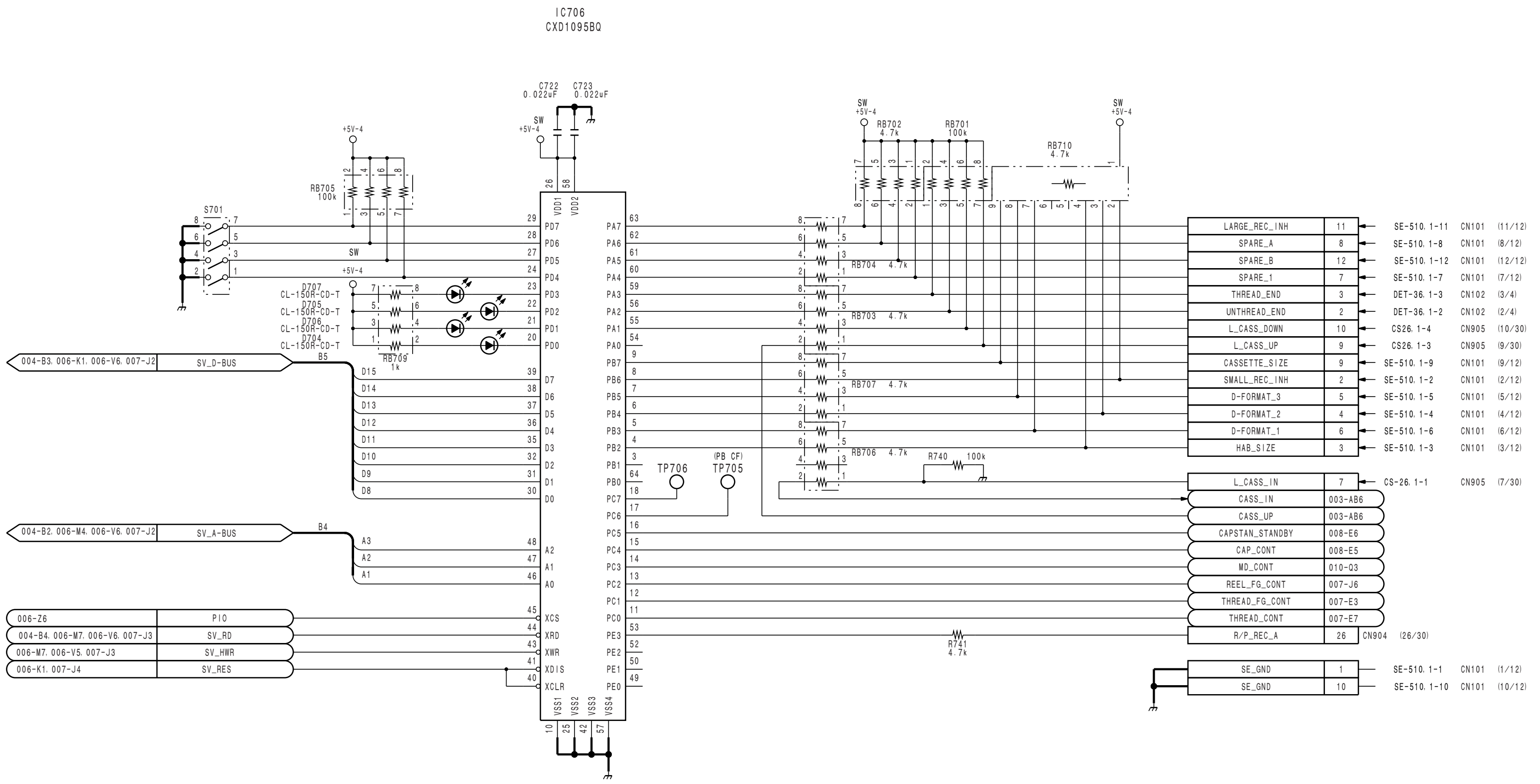
H


IC706
CXD1095BQ
C722 0.022uF
C723 0.022uF
SW +5V-4
RB705 100k
S701
RB702 4.7k
RB701 100k
RB710 4.7k
RB704 4.7k
RB703 4.7k
RB707 4.7k
RB706 4.7k
R740 100k
R741 4.7k
RB709 1k
D707 CL-150R-CD-T
D705 CL-150R-CD-T
D706 CL-150R-CD-T
D704 CL-150R-CD-T
TP706
(PB CF) TP705
004-B3, 006-K1, 006-V6, 007-J2
SV_D-BUS
004-B2, 006-M4, 006-V6, 007-J2
SV_A-BUS
006-Z6
PIO
004-B4, 006-M7, 006-V6, 007-J3
SV_RD
006-M7, 006-V5, 007-J3
SV_WR
006-K1, 007-J4
SV_RES
LARGE_REC_INH 11 SE-510, 1-11 CN101 (11/12)
SPARE_A 8 SE-510, 1-8 CN101 (8/12)
SPARE_B 12 SE-510, 1-12 CN101 (12/12)
SPARE_1 7 SE-510, 1-7 CN101 (7/12)
THREAD_END 3 DET-36, 1-3 CN102 (3/4)
UNTHREAD_END 2 DET-36, 1-2 CN102 (2/4)
L_CASS_DOWN 10 CS26, 1-4 CN905 (10/30)
L_CASS_UP 9 CS26, 1-3 CN905 (9/30)
CASSETTE_SIZE 9 SE-510, 1-9 CN101 (9/12)
SMALL_REC_INH 2 SE-510, 1-2 CN101 (2/12)
D-FORMAT_3 5 SE-510, 1-5 CN101 (5/12)
D-FORMAT_2 4 SE-510, 1-4 CN101 (4/12)
D-FORMAT_1 6 SE-510, 1-6 CN101 (6/12)
HAB_SIZE 3 SE-510, 1-3 CN101 (3/12)
L_CASS_IN 7 CS-26, 1-1 CN905 (7/30)
CASS_IN 003-AB6
CASS_UP 003-AB6
CAPSTAN_STANDBY 008-E6
CAP_CONT 008-E5
MD_CONT 010-D3
REEL_FG_CONT 007-J6
THREAD_FG_CONT 007-E3
THREAD_CONT 007-E7
R/P_REC_A 26 CN904 (26/30)
SE_GND 1 SE-510, 1-1 CN101 (1/12)
SE_GND 10 SE-510, 1-10 CN101 (10/12)

SST-13 (8/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_8

SST-13 (9/12)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

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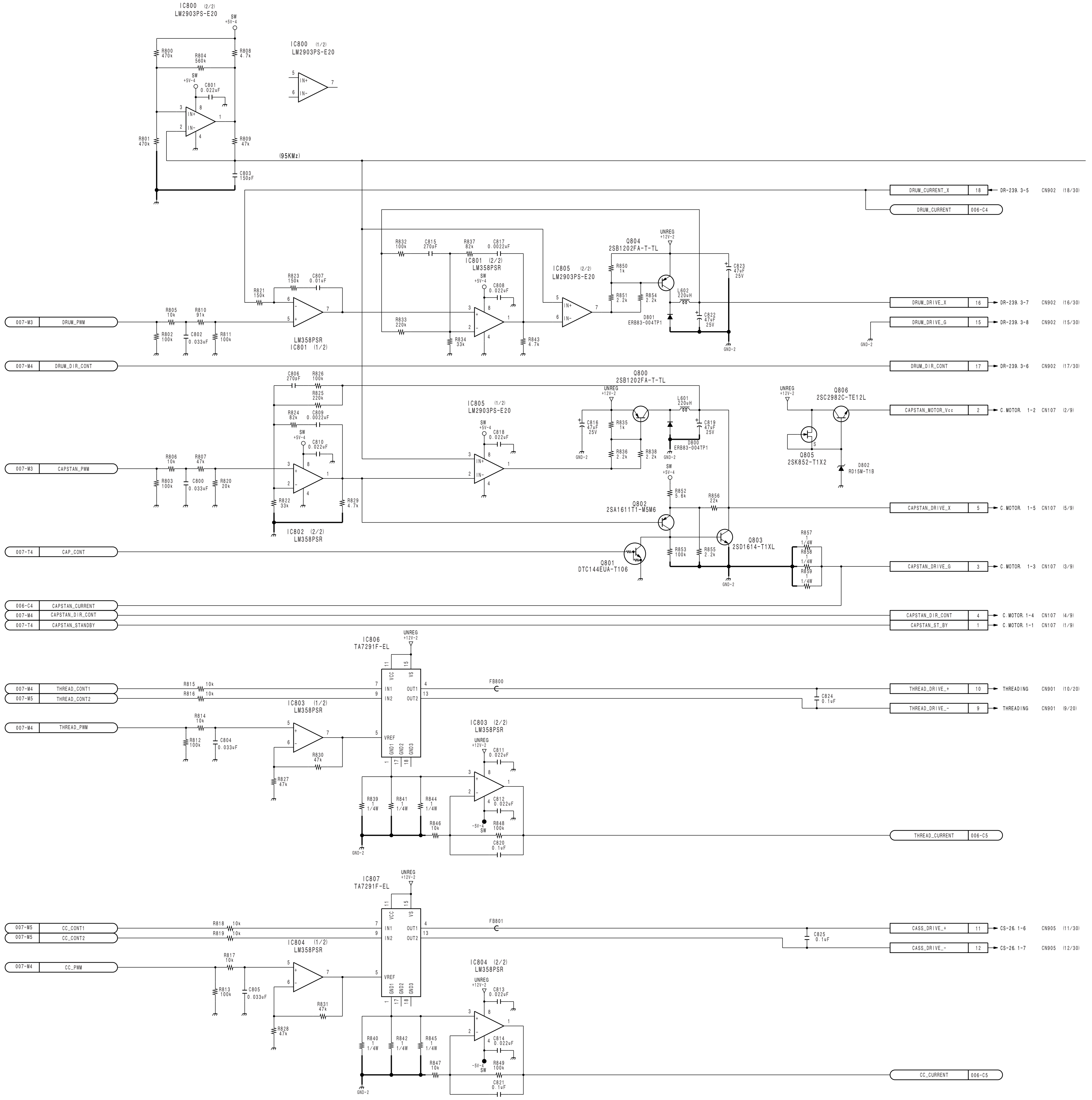
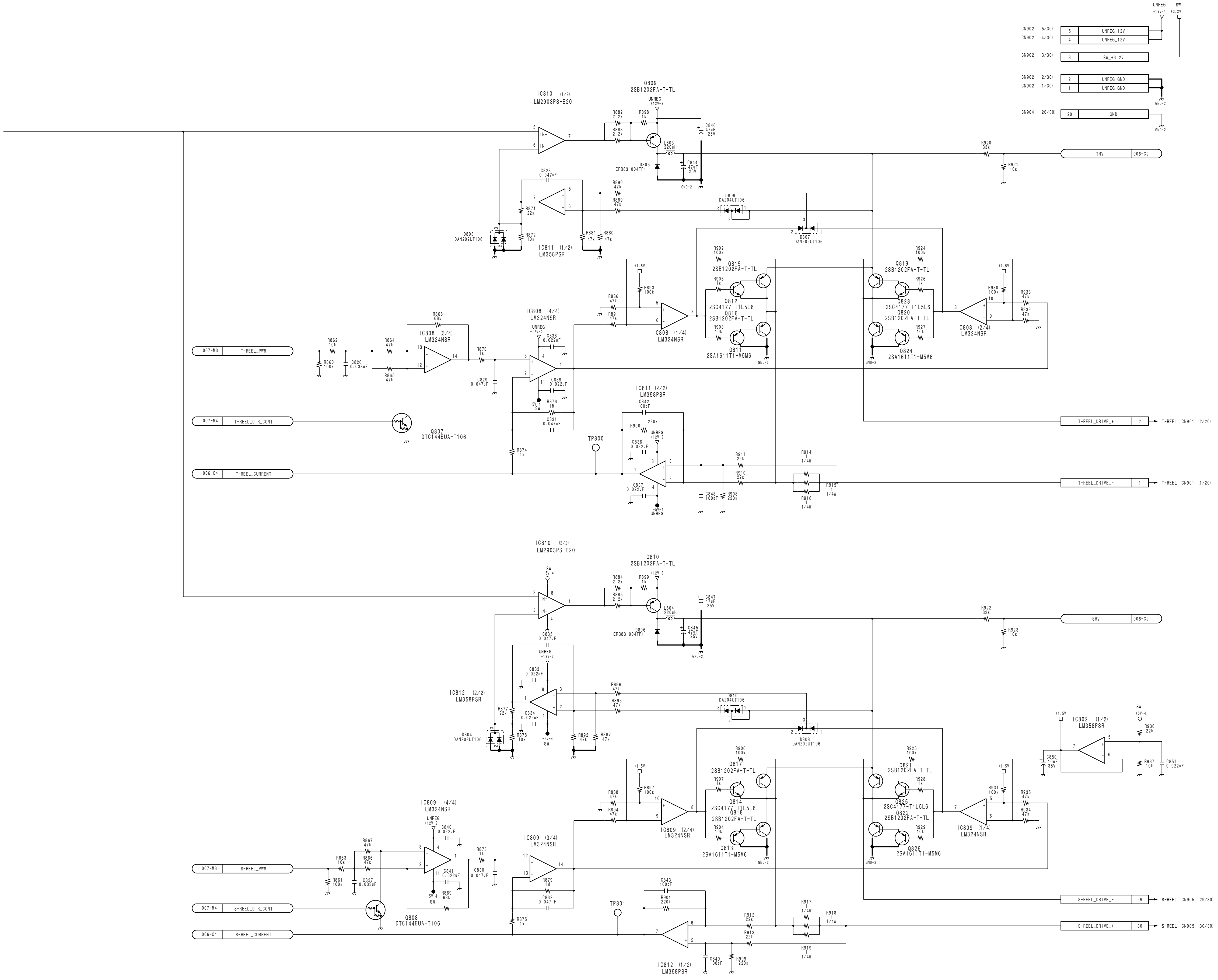

IC800 (2/2)
LM2903PS-E20
SW +5V-4
R800 470k
R804 560k
R808 4.7k
C801 0.022uF
R801 470k
R809 47k
IN+
IN-
C803 150pF
IC800 (1/2)
LM2903PS-E20
(95KMz)
007-M3 DRUM_PWM
R805 10k
R810 91k
R802 100k
C802 0.033uF
R811 100k
R821 150k
R823 150k
C807 0.01uF
LM358PSR
IC801 (1/2)
R832 100k
C815 270pF
R837 82k
C817 0.0022uF
IC801 (2/2)
LM358PSR
C808 0.022uF
R833 220k
R834 33k
R843 4.7k
IC805 (2/2)
LM2903PS-E20
Q804
2SB1202FA-T-TL
UNREG +12V-2
R850 1k
R851 2.2k
R854 2.2k
L602 220uH
D801
ERB83-004TP1
C822 47uF 25V
C823 47uF 25V
GND-2
DRUM_CURRENT_X 18 DR-239, 3-5 CN902 (18/30)
DRUM_CURRENT 006-C4
DRUM_DRIVE_X 16 DR-239, 3-7 CN902 (16/30)
DRUM_DRIVE_G 15 DR-239, 3-8 CN902 (15/30)
007-M4 DRUM_DIR_CONT
DRUM_DIR_CONT 17 DR-239, 3-6 CN902 (17/30)
C806 270pF
R826 100k
R825 220k
R824 82k
C809 0.0022uF
C810 0.022uF
007-M3 CAPSTAN_PWM
R806 10k
R807 47k
R803 100k
C800 0.033uF
R820 20k
R822 33k
R829 4.7k
IC802 (2/2)
LM358PSR
IC805 (1/2)
LM2903PS-E20
C818 0.022uF
Q800
2SB1202FA-T-TL
C816 47uF 25V
R835 1k
R836 2.2k
R838 2.2k
L601 220uH
C819 47uF 25V
D800
ERB83-004TP1
Q806
2SC2982C-TE12L
Q805
2SK852-T1X2
D802
RD15M-T1B
CAPSTAN_MOTOR_Vcc 2 C.MOTOR, 1-2 CN107 (2/9)
R852 5.6k
R856 22k
Q802
2SA1611T1-M5M6
CAPSTAN_DRIVE_X 5 C.MOTOR, 1-5 CN107 (5/9)
007-T4 CAP_CONT
Q803
2SD1614-T1XL
R853 100k
R855 2.2k
Q801
DTC144EUA-T106
R857 1 1/4W
R858 1 1/4W
R859 1 1/4W
CAPSTAN_DRIVE_G 3 C.MOTOR, 1-3 CN107 (3/9)
006-C4 CAPSTAN_CURRENT
007-M4 CAPSTAN_DIR_CONT
007-T4 CAPSTAN_STANDBY
CAPSTAN_DIR_CONT 4 C.MOTOR, 1-4 CN107 (4/9)
CAPSTAN_ST_BY 1 C.MOTOR, 1-1 CN107 (1/9)
IC806
TA7291F-EL
VCC VS IN1 IN2 OUT1 OUT2 VREF GND1 GND2 GND3
007-M4 THREAD_CONT1
007-M5 THREAD_CONT2
R815 10k
R816 10k
FB800
C824 0.1uF
THREAD_DRIVE_+ 10 THREADING CN901 (10/20)
THREAD_DRIVE_- 9 THREADING CN901 (9/20)
IC803 (1/2)
LM358PSR
007-M4 THREAD_PWM
R814 10k
R812 100k
C804 0.033uF
R830 47k
R827 47k
IC803 (2/2)
LM358PSR
C811 0.022uF
R839 1 1/4W
R841 1 1/4W
R844 1 1/4W
C812 0.022uF
-5V-4 SW
R846 10k
R848 100k
C820 0.1uF
THREAD_CURRENT 006-C5
IC807
TA7291F-EL
007-M5 CC_CONT1
007-M5 CC_CONT2
R818 10k
R819 10k
FB801
C825 0.1uF
CASS_DRIVE_+ 11 CS-26, 1-6 CN905 (11/30)
CASS_DRIVE_- 12 CS-26, 1-7 CN905 (12/30)
IC804 (1/2)
LM358PSR
007-M4 CC_PWM
R817 10k
R813 100k
C805 0.033uF
R831 47k
R828 47k
IC804 (2/2)
LM358PSR
C813 0.022uF
R840 1 1/4W
R842 1 1/4W
R845 1 1/4W
C814 0.022uF
R847 10k
R849 100k
C821 0.1uF
CC_CURRENT 006-C5

5-96

A B C D E F G H


UNREG +12V-4
SW +3.2V
CN902 (5/30) 5 UNREG_12V
CN902 (4/30) 4 UNREG_12V
CN902 (3/30) 3 SW_+3.2V
CN902 (2/30) 2 UNREG_GND
CN902 (1/30) 1 UNREG_GND
CN904 (20/30) 20 GND
GND-2
IC810 (1/2) LM2903PS-E20
Q809 2SB1202FA-T-TL
R882 2.2k
R883 2.2k
R898 1k
L603 220uH
C846 47uF 25V
C844 47uF 25V
D805 ER883-004TP1
R920 33k
R921 10k
TRV 006-C2
C828 0.047uF
R890 47k
R889 47k
D809 DA204UT106
D807 DA202UT106
R871 22k
R872 10k
D803 DAN202UT106
R881 47k
R880 47k
IC811 (1/2) LM358PSR
R902 100k
Q815 2SB1202FA-T-TL
R905 1k
Q812 2SC4177-T1L5L6
Q816 2SB1202FA-T-TL
R903 10k
Q811 2SA1611T1-M5M6
R924 100k
Q819 2SB1202FA-T-TL
R926 1k
Q823 2SC4177-T1L5L6
Q820 2SB1202FA-T-TL
R927 10k
Q824 2SA1611T1-M5M6
R930 100k
R933 47k
R932 47k
IC808 (2/4) LM324NSR
R886 47k
R891 47k
R893 100k
IC808 (1/4) LM324NSR
IC808 (4/4) LM324NSR
C838 0.022uF
C839 0.022uF
R876 1M
C831 0.047uF
R868 68k
IC808 (3/4) LM324NSR
R862 10k
R864 47k
R865 47k
R860 100k
C826 0.033uF
R870 1k
C829 0.047uF
007-M3 T-REEL_PWM
007-M4 T-REEL_DIR_CONT
Q807 DTC144EUA-T106
006-C4 T-REEL_CURRENT
R874 1k
TP800
IC811 (2/2) LM358PSR
C842 100pF
R900 220k
C836 0.022uF
C837 0.022uF
R911 22k
R910 22k
R914 1 1/4W
R915 1 1/4W
R916 1 1/4W
C848 100pF
R908 220k
T-REEL_DRIVE_+ 2 T-REEL CN901 (2/20)
T-REEL_DRIVE_- 1 T-REEL CN901 (1/20)
IC810 (2/2) LM2903PS-E20
Q810 2SB1202FA-T-TL
R884 2.2k
R885 2.2k
R899 1k
L604 220uH
C847 47uF 25V
C845 47uF 25V
D806 ER883-004TP1
R922 33k
R923 10k
SRV 006-C2
C835 0.047uF
C833 0.022uF
C834 0.022uF
IC812 (2/2) LM358PSR
R877 22k
R878 10k
D804 DAN202UT106
R896 47k
R895 47k
R892 47k
R887 47k
D810 DA204UT106
D808 DAN202UT106
IC802 (1/2) LM358PSR
R936 22k
R937 10k
C850 10uF 35V
C851 0.022uF
R906 100k
Q817 2SB1202FA-T-TL
R907 1k
Q814 2SC4177-T1L5L6
Q818 2SB1202FA-T-TL
R904 10k
Q813 2SA1611T1-M5M6
R925 100k
Q821 2SB1202FA-T-TL
R928 1k
Q825 2SC4177-T1L5L6
Q822 2SB1202FA-T-TL
R929 10k
Q826 2SA1611T1-M5M6
R931 100k
R935 47k
R934 47k
IC809 (1/4) LM324NSR
R888 47k
R894 47k
R897 100k
IC809 (2/4) LM324NSR
IC809 (4/4) LM324NSR
C840 0.022uF
C841 0.022uF
R869 68k
R867 47k
R866 47k
R863 10k
R861 100k
C827 0.033uF
R873 1k
C830 0.047uF
IC809 (3/4) LM324NSR
R879 1M
C832 0.047uF
007-M3 S-REEL_PWM
007-M4 S-REEL_DIR_CONT
Q808 DTC144EUA-T106
006-C4 S-REEL_CURRENT
R875 1k
TP801
C843 100pF
R901 220k
IC812 (1/2) LM358PSR
R912 22k
R913 22k
R917 1 1/4W
R918 1 1/4W
R919 1 1/4W
C849 100pF
R909 220k
S-REEL_DRIVE_- 29 S-REEL CN905 (29/30)
S-REEL_DRIVE_+ 30 S-REEL CN905 (30/30)
1
2
3
4
5

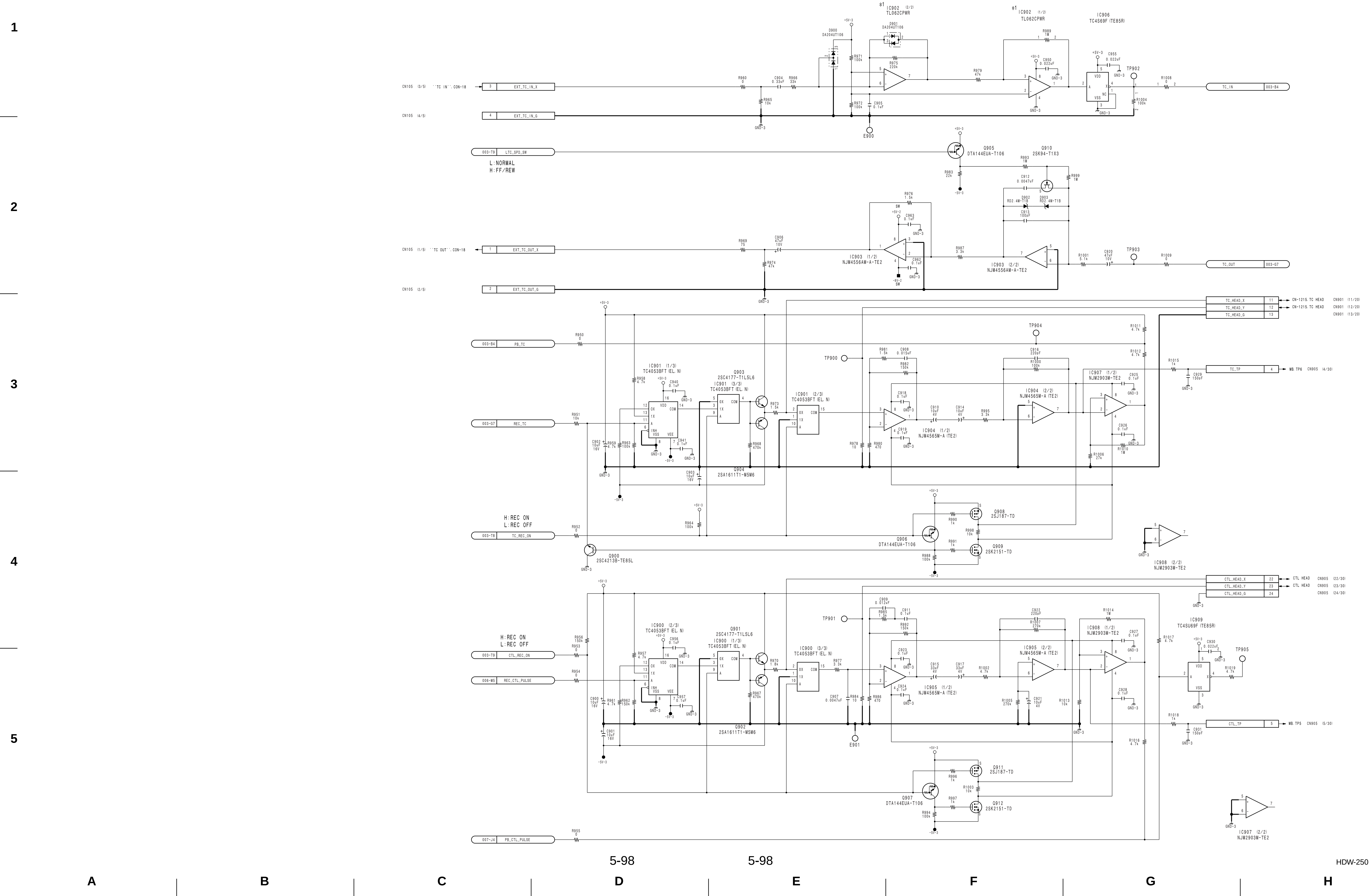
SST-13 (9/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_9

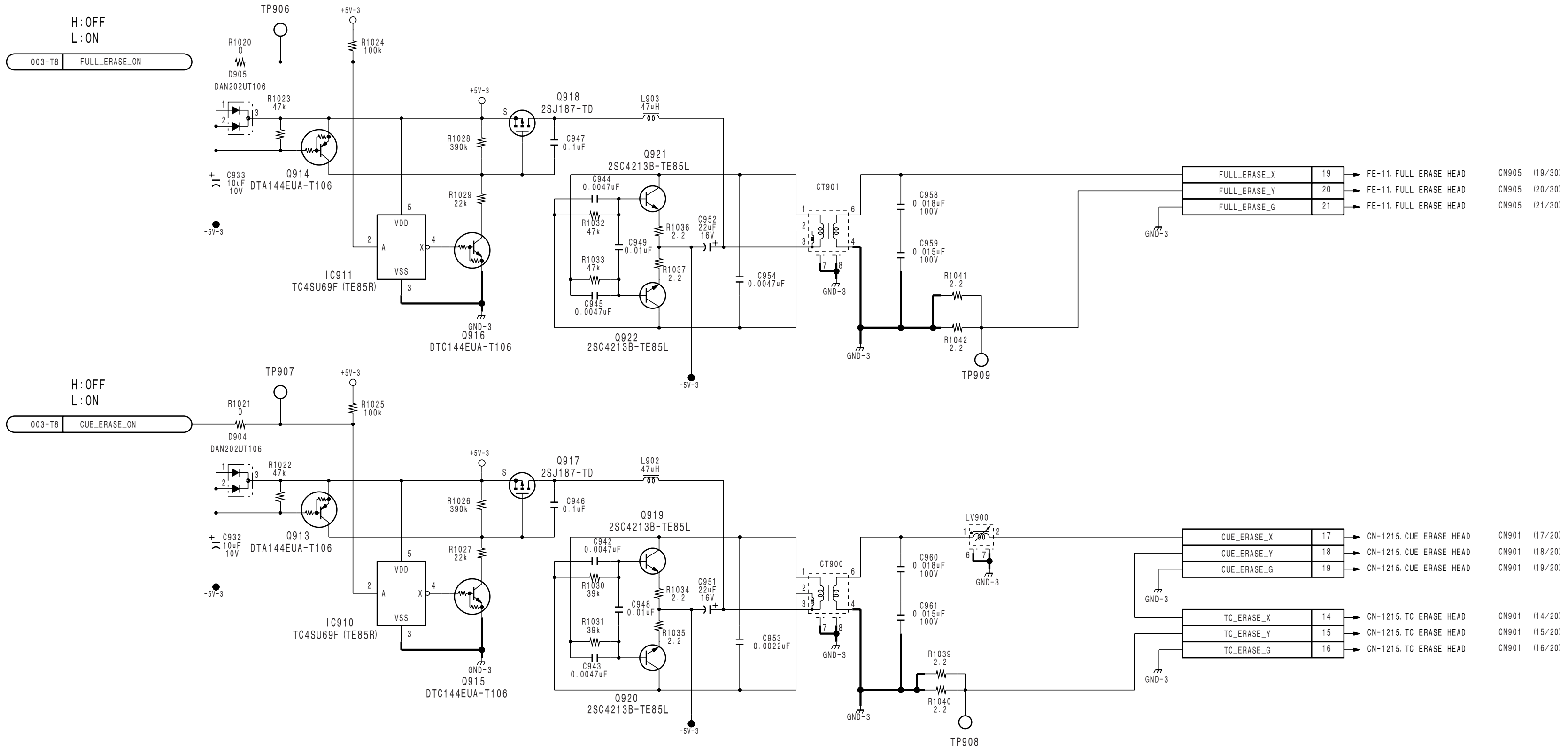
]

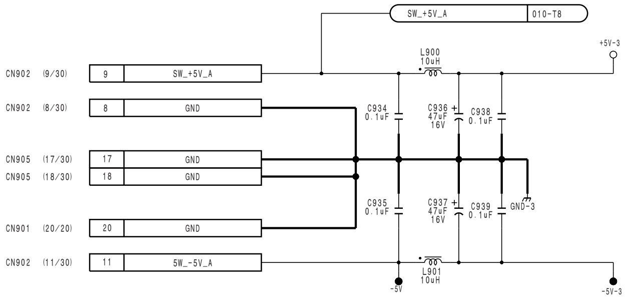
SST-13 (10/12)

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
2
3
4
5
A
B
C
D
E
F
G
H
CN105 (3/5) "TC IN" CON-18
EXT_TC_IN_X
EXT_TC_IN_G
LTC_SPD_SW
L:NORMAL
H:FF/REW
CN105 (1/5) "TC OUT" CON-18
EXT_TC_OUT_X
EXT_TC_OUT_G
PB_TC
REC_TC
H:REC ON
L:REC OFF
TC_REC_ON
CTL_REC_ON
REC_CTL_PULSE
PB_CTL_PULSE
IC902 (2/2) TL062CPWR
IC902 (1/2) TL062CPWR
IC906 TC4S69F (TE85R)
TP902
TP903
TP904
TP905
TP900
TP901
E900
E901
Q905 DTA144EUA-T106
Q910 2SK94-T1X3
IC903 (1/2) NJM4556AM-A-TE2
IC903 (2/2) NJM4556AM-A-TE2
IC901 (1/3) TC4053BFT (EL, N)
IC901 (2/3) TC4053BFT (EL, N)
IC901 (3/3) TC4053BFT (EL, N)
Q903 2SC4177-T1L5L6
Q904 2SA1611T1-M5M6
IC904 (1/2) NJM4565M-A (TE2)
IC904 (2/2) NJM4565M-A (TE2)
IC907 (1/2) NJM2903M-TE2
IC907 (2/2) NJM2903M-TE2
Q908 2SJ187-TD
Q909 2SK2151-TD
Q906 DTA144EUA-T106
Q900 2SC4213B-TE85L
IC908 (2/2) NJM2903M-TE2
IC908 (1/2) NJM2903M-TE2
IC900 (1/3) TC4053BFT (EL, N)
IC900 (2/3) TC4053BFT (EL, N)
IC900 (3/3) TC4053BFT (EL, N)
Q901 2SC4177-T1L5L6
Q902 2SA1611T1-M5M6
IC905 (1/2) NJM4565M-A (TE2)
IC905 (2/2) NJM4565M-A (TE2)
IC909 TC4SU69F (TE85R)
Q911 2SJ187-TD
Q912 2SK2151-TD
Q907 DTA144EUA-T106
TC_IN 003-B4
TC_OUT 003-G7
TC_HEAD_X
TC_HEAD_Y
TC_HEAD_G
CN-1215, TC HEAD CN901 (11/20)
CN-1215, TC HEAD CN901 (12/20)
CN901 (13/20)
TC_TP
MB, TP6 CN905 (4/30)
CTL_HEAD_X
CTL_HEAD_Y
CTL_HEAD_G
CTL HEAD CN905 (22/30)
CTL HEAD CN905 (23/30)
CN905 (24/30)
CTL_TP
MB, TP5 CN905 (5/30)

5-98


H:OFF
L:ON
003-T8
FULL_ERASE_ON
TP906
R1020
R1024 100k
D905 DAN202UT106
R1023 47k
Q914 DTA144EUA-T106
C933 10uF 10V
IC911 TC4SU69F (TE85R)
Q916 DTC144EUA-T106
R1028 390k
R1029 22k
Q918 2SJ187-TD
C947 0.1uF
L903 47uH
Q921 2SC4213B-TE85L
C944 0.0047uF
R1032 47k
R1033 47k
C945 0.0047uF
C949 0.01uF
R1036 2.2
R1037 2.2
C952 22uF 16V
C954 0.0047uF
Q922 2SC4213B-TE85L
CT901
C958 0.018uF 100V
C959 0.015uF 100V
R1041 2.2
R1042 2.2
TP909
FULL_ERASE_X 19 FE-11, FULL ERASE HEAD CN905 (19/30)
FULL_ERASE_Y 20 FE-11, FULL ERASE HEAD CN905 (20/30)
FULL_ERASE_G 21 FE-11, FULL ERASE HEAD CN905 (21/30)
H:OFF
L:ON
003-T8
CUE_ERASE_ON
TP907
R1021
R1025 100k
D904 DAN202UT106
R1022 47k
Q913 DTA144EUA-T106
C932 10uF 10V
IC910 TC4SU69F (TE85R)
Q915 DTC144EUA-T106
R1026 390k
R1027 22k
Q917 2SJ187-TD
C946 0.1uF
L902 47uH
Q919 2SC4213B-TE85L
C942 0.0047uF
R1030 39k
R1031 39k
C943 0.0047uF
C948 0.01uF
R1034 2.2
R1035 2.2
C951 22uF 16V
C953 0.0022uF
Q920 2SC4213B-TE85L
CT900
C960 0.018uF 100V
C961 0.015uF 100V
LV900
R1039 2.2
R1040 2.2
TP908
CUE_ERASE_X 17 CN-1215, CUE ERASE HEAD CN901 (17/20)
CUE_ERASE_Y 18 CN-1215, CUE ERASE HEAD CN901 (18/20)
CUE_ERASE_G 19 CN-1215, CUE ERASE HEAD CN901 (19/20)
TC_ERASE_X 14 CN-1215, TC ERASE HEAD CN901 (14/20)
TC_ERASE_Y 15 CN-1215, TC ERASE HEAD CN901 (15/20)
TC_ERASE_G 16 CN-1215, TC ERASE HEAD CN901 (16/20)
+5V-3
-5V-3
GND-3


SW_+5V_A
010-T8
CN902 (9/30) 9 SW_+5V_A
CN902 (8/30) 8 GND
CN905 (17/30) 17 GND
CN905 (18/30) 18 GND
CN901 (20/20) 20 GND
CN902 (11/30) 11 SW_-5V_A
L900 10uH
L901 10uH
C934 0.1uF
C935 0.1uF
C936 47uF 16V
C937 47uF 16V
C938 0.1uF
C939 0.1uF
+5V-3
-5V-3
-5V
GND-3

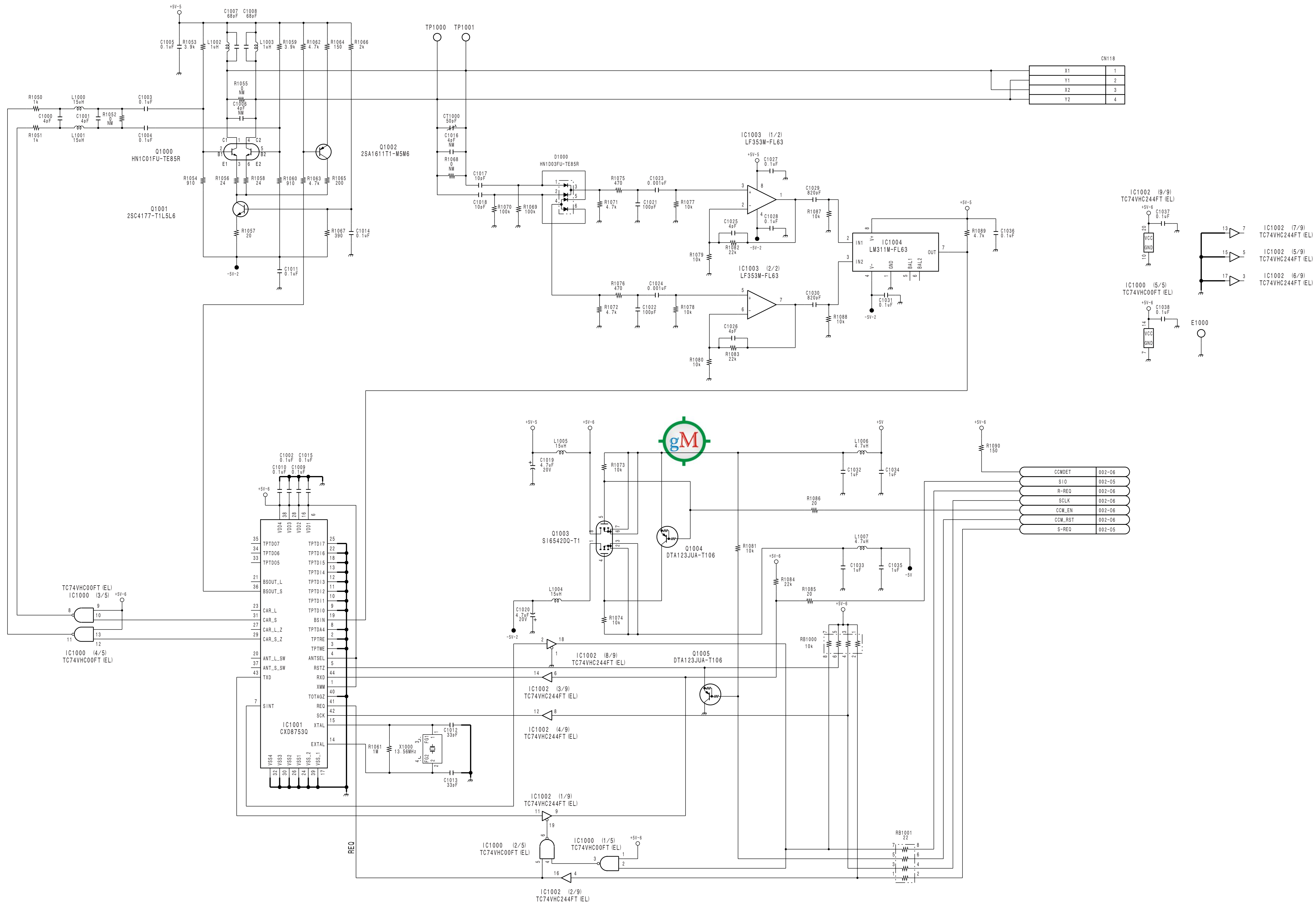
NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
✻1	IC902 TL062CPW-E05 → TL062CPWR C953 0.0047uF → 0.0022uP R1030, 1031 47k → 39k	S/N30051~

SST-13 (10/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_10

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher



Q1000 HN1C01FU-TE85R
Q1001 2SC4177-T1L5L6
Q1002 2SA1611T1-M5M6
TP1000
TP1001
CN118
X1
Y1
X2
Y2
D1000 HN1D03FU-TE85R
IC1003 (1/2) LF353M-FL63
IC1003 (2/2) LF353M-FL63
IC1004 LM311M-FL63
IC1002 (9/9) TC74VHC244FT (EL)
IC1002 (7/9) TC74VHC244FT (EL)
IC1002 (5/9) TC74VHC244FT (EL)
IC1002 (6/9) TC74VHC244FT (EL)
IC1000 (5/5) TC74VHC00FT (EL)
E1000
Q1003 SI6542DQ-T1
Q1004 DTA123JUA-T106
Q1005 DTA123JUA-T106
CCMDET
SIO
R-REQ
SCLK
CCM_EN
CCM_RST
S-REQ
IC1000 (3/5) TC74VHC00FT (EL)
IC1000 (4/5) TC74VHC00FT (EL)
IC1001 CXD8753Q
X1000 13.56MHz
IC1002 (8/9) TC74VHC244FT (EL)
IC1002 (3/9) TC74VHC244FT (EL)
IC1002 (4/9) TC74VHC244FT (EL)
IC1002 (1/9) TC74VHC244FT (EL)
IC1000 (2/5) TC74VHC00FT (EL)
IC1000 (1/5) TC74VHC00FT (EL)
IC1002 (2/9) TC74VHC244FT (EL)
RB1000 10k
RB1001 22
REQ
1
2
3
4
5
A
B
C
D
E
F
G
H

SST-13 (11/12)

BOARD NO. 1-673-082-11/-12
LOT NO. 812-
HDW-250_SST-13_011_11

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30051 and Higher

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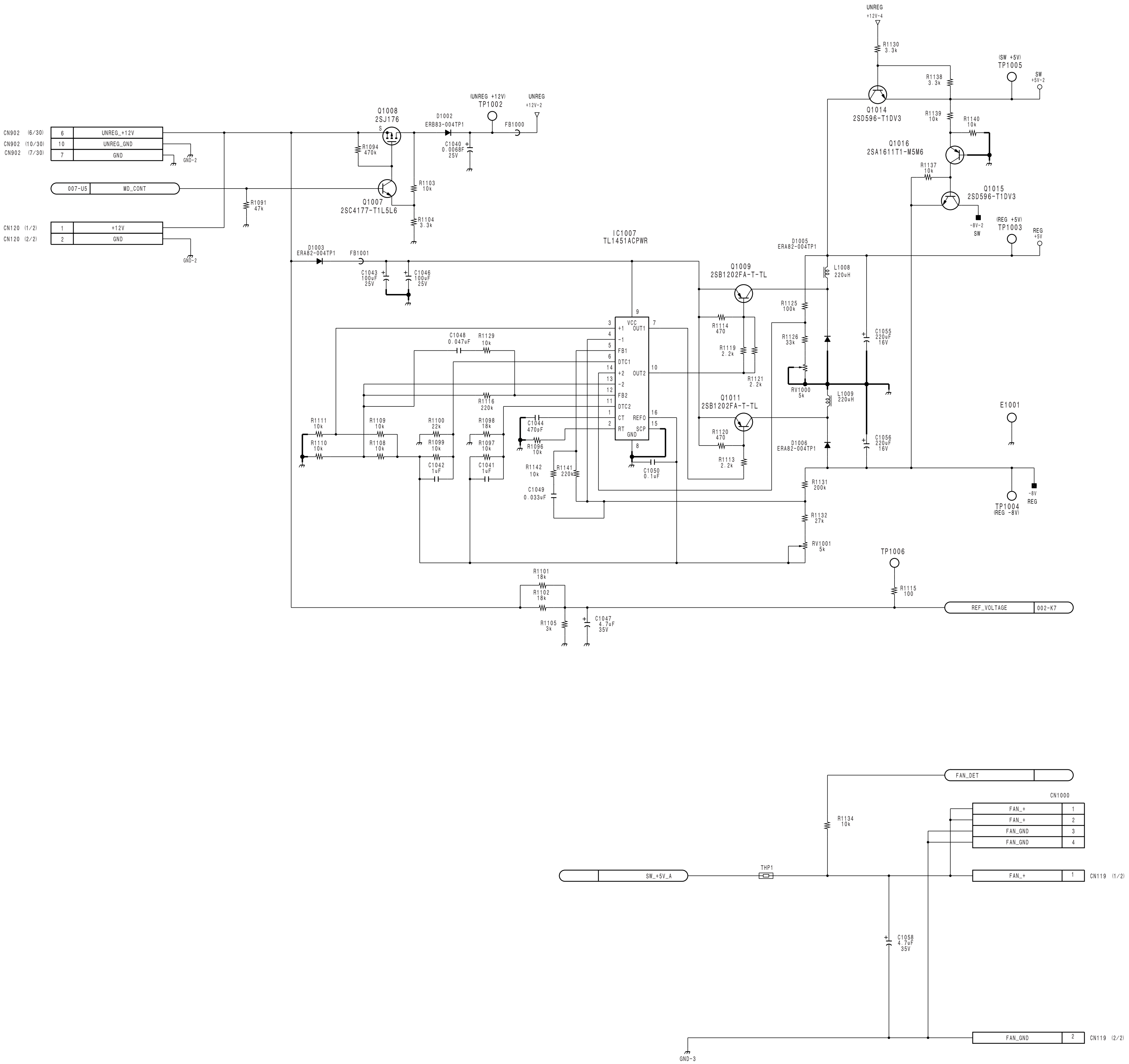

CN902 (6/30)
CN902 (10/30)
CN902 (7/30)
6
UNREG_+12V
10
UNREG_GND
7
GND
GND-2
007-U5
MD_CONT
CN120 (1/2)
CN120 (2/2)
1
+12V
2
GND
GND-2
R1091
47k
Q1008
2SJ176
S
R1094
470k
Q1007
2SC4177-T1L5L6
R1103
10k
R1104
3.3k
D1002
ERB83-004TP1
C1040
0.0068F
25V
(UNREG +12V)
TP1002
UNREG
+12V-2
FB1000
D1003
ERA82-004TP1
FB1001
C1043
100uF
25V
C1046
100uF
25V
IC1007
TL1451ACPWR
VCC
+1
OUT1
-1
FB1
DTC1
+2
OUT2
-2
FB2
DTC2
CT
REFO
RT
SCP
GND
C1048
0.047uF
R1129
10k
R1116
220k
R1111
10k
R1110
10k
R1109
10k
R1108
10k
R1100
22k
R1099
10k
C1042
1uF
R1098
18k
R1097
10k
C1041
1uF
C1044
470pF
R1096
10k
R1142
10k
R1141
220k
C1049
0.033uF
C1050
0.1uF
Q1009
2SB1202FA-T-TL
R1114
470
R1119
2.2k
R1121
2.2k
Q1011
2SB1202FA-T-TL
R1120
470
R1113
2.2k
D1005
ERA82-004TP1
L1008
220uH
R1125
100k
R1126
33k
RV1000
5k
L1009
220uH
C1055
220uF
16V
C1056
220uF
16V
D1006
ERA82-004TP1
R1131
200k
R1132
27k
RV1001
5k
UNREG
+12V-4
R1130
3.3k
Q1014
2SD596-T1DV3
R1138
3.3k
(SW +5V)
TP1005
SW
+5V-2
R1139
10k
R1140
10k
Q1016
2SA1611T1-M5M6
R1137
10k
Q1015
2SD596-T1DV3
-8V-2
SW
(REG +5V)
TP1003
REG
+5V
E1001
TP1004
(REG -8V)
-8V
REG
TP1006
R1115
100
REF_VOLTAGE
002-K7
R1101
18k
R1102
18k
R1105
3k
C1047
4.7uF
35V
FAN_DET
CN1000
FAN_+
FAN_+
FAN_GND
FAN_GND
R1134
10k
SW_+5V_A
THP1
FAN_+
CN119 (1/2)
C1058
4.7uF
35V
FAN_GND
CN119 (2/2)
GND-3

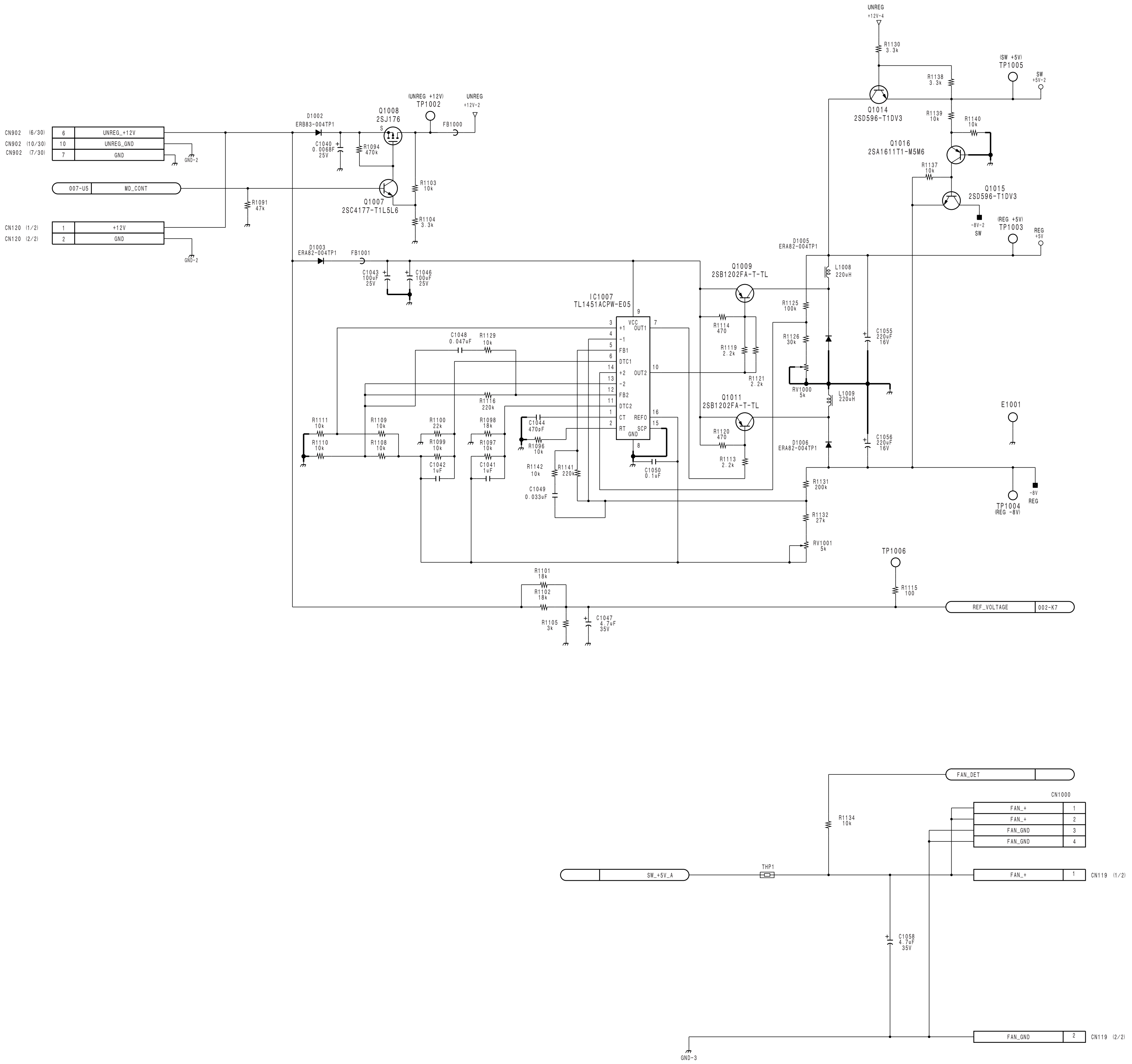
SST-13 (12/12)

BOARD NO. 1-673-082-12
LOT NO. 903-
HDW-250_SST-13_012_12

A B C D E F G H

SST-13 (12/12)

HDW-250 (J) : S/N 30001 through 30050



1
2
3
4
5
CN902 (6/30)
CN902 (10/30)
CN902 (7/30)
UNREG_+12V
UNREG_GND
GND
GND-2
007-U5
MD_CONT
R1091 47k
CN120 (1/2)
CN120 (2/2)
+12V
GND
D1002 ERB83-004TP1
C1040 0.0068F 25V
Q1008 2SJ176
R1094 470k
(UNREG +12V) TP1002
UNREG +12V-2
FB1000
Q1007 2SC4177-T1L5L6
R1103 10k
R1104 3.3k
D1003 ERA82-004TP1
FB1001
C1043 100uF 25V
C1046 100uF 25V
IC1007 TL1451ACPW-E05
VCC
OUT1
OUT2
FB1
DTC1
FB2
DTC2
CT
RT
GND
REFO
SCP
C1048 0.047uF
R1129 10k
R1116 220k
R1111 10k
R1110 10k
R1109 10k
R1108 10k
R1100 22k
R1099 10k
R1098 18k
R1097 10k
C1042 1uF
C1041 1uF
C1044 470pF
R1096 10k
R1142 10k
R1141 220k
C1049 0.033uF
C1050 0.1uF
Q1009 2SB1202FA-T-TL
R1114 470
R1119 2.2k
R1121 2.2k
Q1011 2SB1202FA-T-TL
R1120 470
R1113 2.2k
UNREG +12V-4
R1130 3.3k
Q1014 2SD596-T1DV3
R1138 3.3k
R1139 10k
R1140 10k
Q1016 2SA1611T1-M5M6
R1137 10k
Q1015 2SD596-T1DV3
(SW +5V) TP1005
SW +5V-2
-8V-2 SW
(REG +5V) TP1003
REG +5V
D1005 ERA82-004TP1
L1008 220uH
R1125 100k
R1126 30k
C1055 220uF 16V
RV1000 5k
L1009 220uH
C1056 220uF 16V
D1006 ERA82-004TP1
E1001
R1131 200k
R1132 27k
RV1001 5k
TP1004 (REG -8V)
-8V REG
TP1006
R1115 100
REF_VOLTAGE
002-K7
R1101 18k
R1102 18k
R1105 3k
C1047 4.7uF 35V
FAN_DET
CN1000
FAN_+
FAN_+
FAN_GND
FAN_GND
R1134 10k
SW_+5V_A
THP1
FAN_+
CN119 (1/2)
C1058 4.7uF 35V
GND-3
FAN_GND
CN119 (2/2)

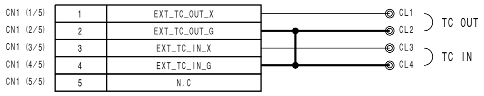
SST-13 (12/12)

BOARD NO. 1-673-082-11
LOT NO. 812-902
HDW-250_SST-13_011_12

5-102

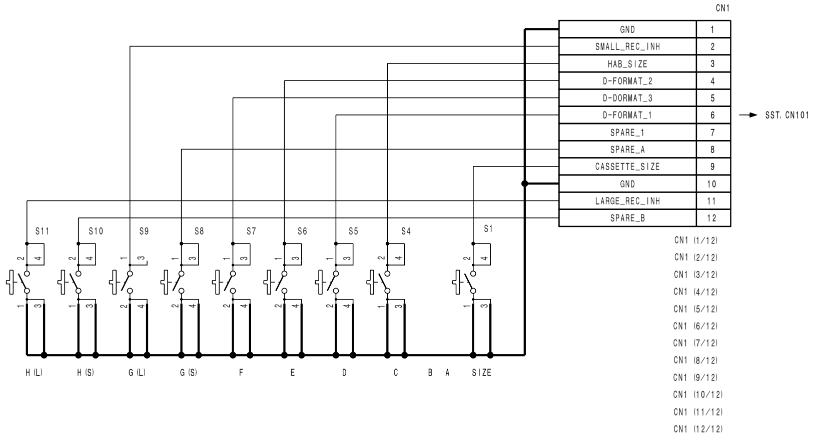
CN-1752, CS-25, CS-26, DET-15, DET-36, SE-510, TR-57

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


CN1 (1/5)
CN1 (2/5)
CN1 (3/5)
CN1 (4/5)
CN1 (5/5)
1 EXT_TC_OUT_X
2 EXT_TC_OUT_G
3 EXT_TC_IN_X
4 EXT_TC_IN_G
5 N.C
CL1
CL2
CL3
CL4
TC OUT
TC IN

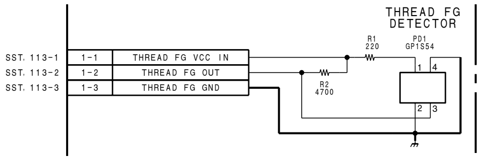
CN-1752

BOARD NO. 1-673-090-11
LOT NO. 812-
HDW-250_CN-1752_011_1


CN1
GND 1
SMALL_REC_INH 2
HAB_SIZE 3
D-FORMAT_2 4
D-DORMAT_3 5
D-FORMAT_1 6
SPARE_1 7
SPARE_A 8
CASSETTE_SIZE 9
GND 10
LARGE_REC_INH 11
SPARE_B 12
SST, CN101
S11
S10
S9
S8
S7
S6
S5
S4
S1
H (L)
H (S)
G (L)
G (S)
F
E
D
C
B
A
SIZE
CN1 (1/12)
CN1 (2/12)
CN1 (3/12)
CN1 (4/12)
CN1 (5/12)
CN1 (6/12)
CN1 (7/12)
CN1 (8/12)
CN1 (9/12)
CN1 (10/12)
CN1 (11/12)
CN1 (12/12)

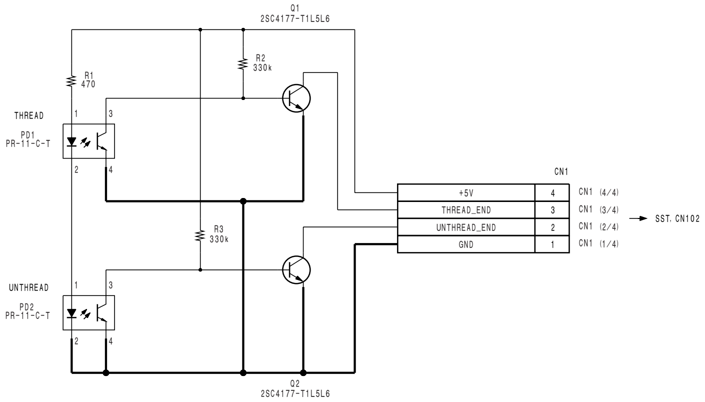
SE-510

BOARD NO. 1-673-075-11
LOT NO. 812-
HDW-250_SE-510_011_1


THREAD FG DETECTOR
SST, 113-1 1-1 THREAD FG VCC IN
SST, 113-2 1-2 THREAD FG OUT
SST, 113-3 1-3 THREAD FG GND
R1 220
PD1 GP1S54
R2 4700

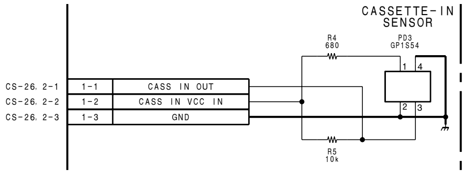
DET-15

BOARD NO. 1-638-705-12
LOT NO. 812-
HDW-250_DET-15_012_1


Q1 2SC4177-T1L5L6
R1 470
R2 330k
R3 330k
THREAD
PD1 PR-11-C-T
UNTHREAD
PD2 PR-11-C-T
CN1
+5V 4
THREAD_END 3
UNTHREAD_END 2
GND 1
CN1 (4/4)
CN1 (3/4)
CN1 (2/4)
CN1 (1/4)
SST, CN102
Q2 2SC4177-T1L5L6

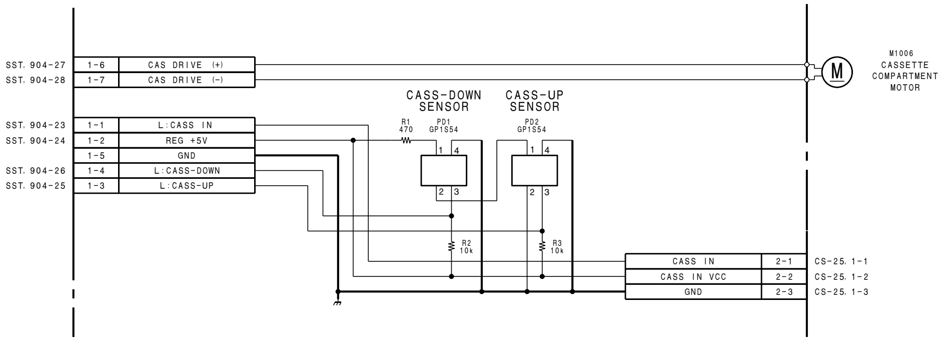
DET-36

BOARD NO. 1-673-076-12/-13
LOT NO. 812-
HDW-250_DET-36_012_1


CASSETTE-IN SENSOR
R4 680
PD3 GP1S54
CS-26, 2-1 1-1 CASS IN OUT
CS-26, 2-2 1-2 CASS IN VCC IN
CS-26, 2-3 1-3 GND
R5 10k

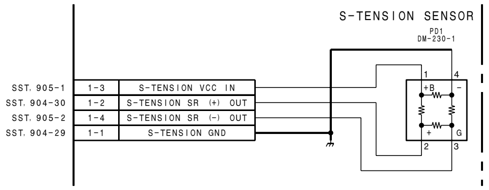
CS-25

BOARD NO. 1-638-701-12
LOT NO. 812-
HDW-250_CS-25_012_1


SST, 904-27 1-6 CAS DRIVE (+)
SST, 904-28 1-7 CAS DRIVE (−)
SST, 904-23 1-1 L:CASS IN
SST, 904-24 1-2 REG +5V
1-5 GND
SST, 904-26 1-4 L:CASS-DOWN
SST, 904-25 1-3 L:CASS-UP
CASS-DOWN SENSOR
CASS-UP SENSOR
R1 470
PD1 GP1S54
PD2 GP1S54
R2 10k
R3 10k
M
M1006 CASSETTE COMPARTMENT MOTOR
CASS IN 2-1 CS-25, 1-1
CASS IN VCC 2-2 CS-25, 1-2
GND 2-3 CS-25, 1-3

CS-26

BOARD NO. 1-638-702-11
LOT NO. 812-
HDW-250_CS-26_011_1


S-TENSION SENSOR
PD1 DM-230-1
SST, 905-1 1-3 S-TENSION VCC IN
SST, 904-30 1-2 S-TENSION SR (+) OUT
SST, 905-2 1-4 S-TENSION SR (−) OUT
SST, 904-29 1-1 S-TENSION GND
+B
−
+
G

TR-57

BOARD NO. 1-638-710-11
LOT NO. 812-
HDW-250_TR-57_011_1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

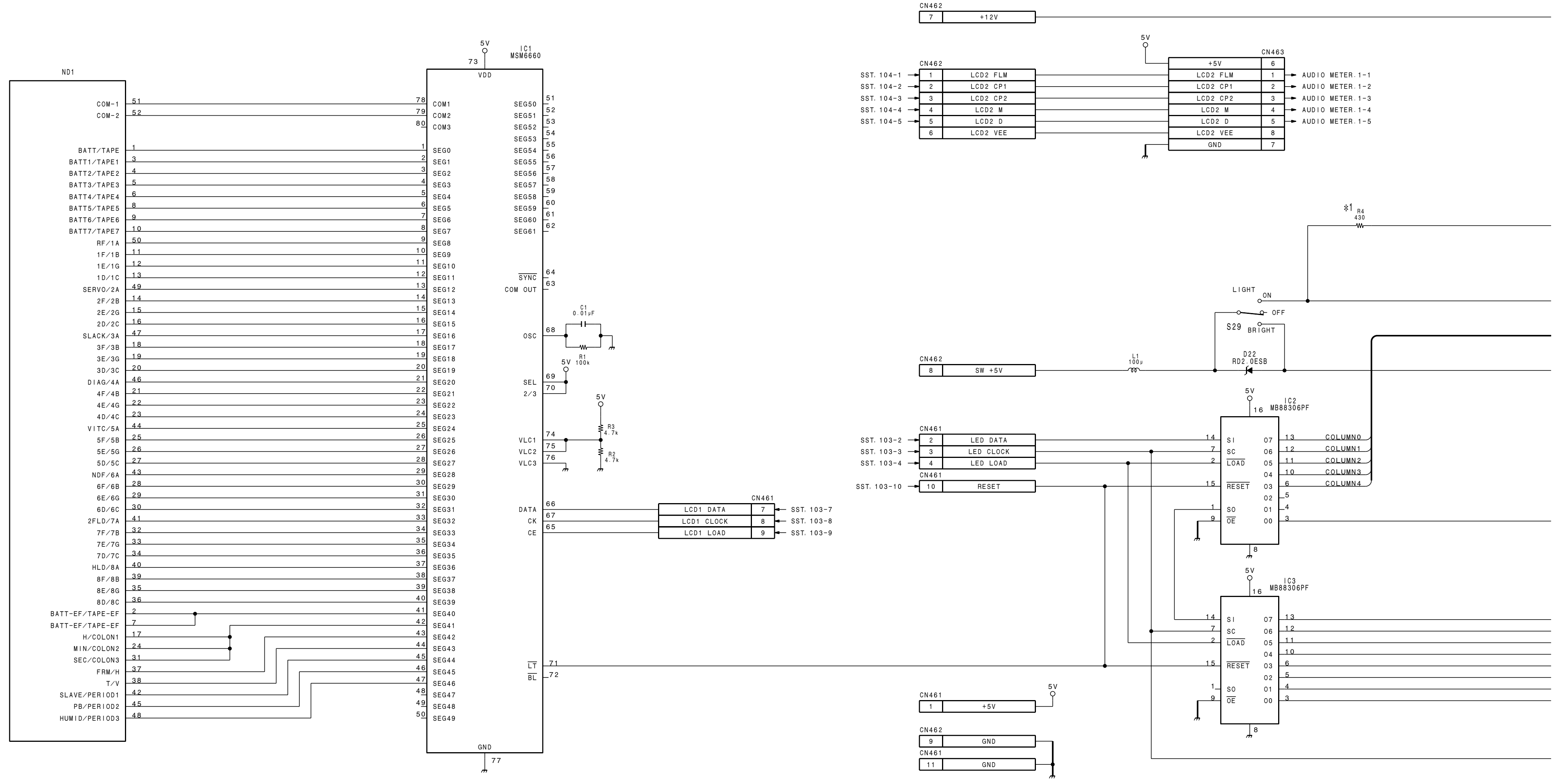
1

2

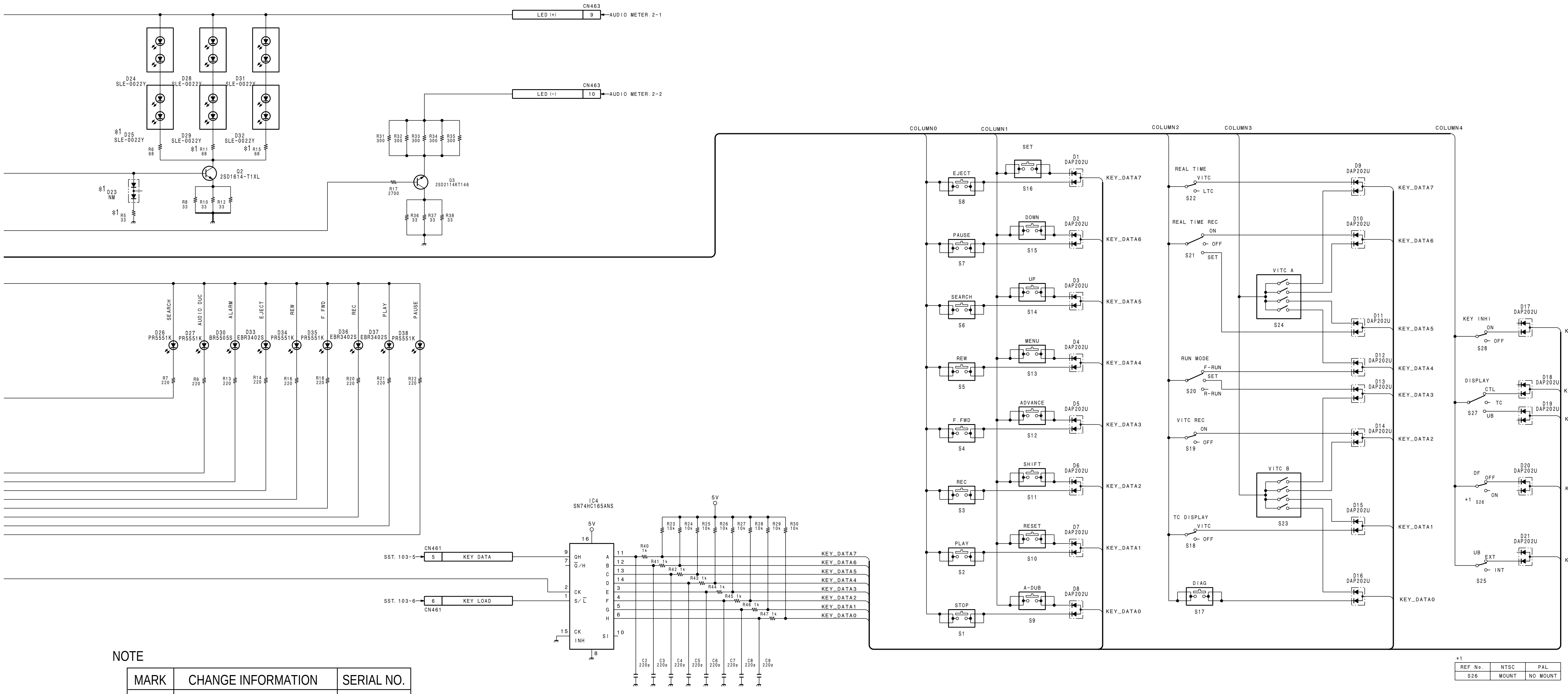
3

4

5


ND1
COM-1
COM-2
BATT/TAPE
BATT1/TAPE1
BATT2/TAPE2
BATT3/TAPE3
BATT4/TAPE4
BATT5/TAPE5
BATT6/TAPE6
BATT7/TAPE7
RF/1A
1F/1B
1E/1G
1D/1C
SERVO/2A
2F/2B
2E/2G
2D/2C
SLACK/3A
3F/3B
3E/3G
3D/3C
DIAG/4A
4F/4B
4E/4G
4D/4C
VITC/5A
5F/5B
5E/5G
5D/5C
NDF/6A
6F/6B
6E/6G
6D/6C
2FLD/7A
7F/7B
7E/7G
7D/7C
HLD/8A
8F/8B
8E/8G
8D/8C
BATT-EF/TAPE-EF
BATT-EF/TAPE-EF
H/COLON1
MIN/COLON2
SEC/COLON3
FRM/H
T/V
SLAVE/PERIOD1
PB/PERIOD2
HUMID/PERIOD3
5V
IC1
MSM6660
VDD
COM1
COM2
COM3
SEG0 … SEG61
SYNC
COM OUT
OSC
SEL
2/3
VLC1
VLC2
VLC3
DATA
CK
CE
LT
BL
GND
C1 0.01μF
R1 100k
R3 4.7k
R2 4.7k
CN461
LCD1 DATA
LCD1 CLOCK
LCD1 LOAD
SST. 103-7
SST. 103-8
SST. 103-9
CN462
+12V
SST. 104-1
SST. 104-2
SST. 104-3
SST. 104-4
SST. 104-5
LCD2 FLM
LCD2 CP1
LCD2 CP2
LCD2 M
LCD2 D
LCD2 VEE
CN463
+5V
GND
AUDIO METER 1-1
AUDIO METER 1-2
AUDIO METER 1-3
AUDIO METER 1-4
AUDIO METER 1-5
R4 430
LIGHT
ON
OFF
BRIGHT
S29
SW +5V
L1 100μ
D22 RD2.0ESB
IC2 MB88306PF
IC3 MB88306PF
SST. 103-2
SST. 103-3
SST. 103-4
SST. 103-10
LED DATA
LED CLOCK
LED LOAD
RESET
SI
SC
LOAD
RESET
SO
OE
O7
O6
O5
O4
O3
O2
O1
O0
COLUMN0
COLUMN1
COLUMN2
COLUMN3
COLUMN4

A B C D E F G H


CN463
LED (+)
9
AUDIO METER.2-1
LED (-)
10
AUDIO METER.2-2
D24 SLE-0022Y
D28 SLE-0022Y
D31 SLE-0022Y
*1 D25 SLE-0022Y
D29 SLE-0022Y
D32 SLE-0022Y
R6 68
*1 R11 68
*1 R15 68
Q2 2SD1614-T1XL
*1 D23 NM
*1 R5 33
R8 33
R10 33
R12 33
R31 300
R32 300
R33 300
R34 300
R35 300
R17 2700
Q3 2SD2114KT146
R36 33
R37 33
R38 33
SEARCH
AUDIO DUC
ALARM
EJECT
REW
F FWD
REC
PLAY
PAUSE
D26 PR5551K
D27 PR5551K
D30 BR5505S
D33 EBR3402S
D34 PR5551K
D35 PR5551K
D36 EBR3402S
D37 EBR3402S
D38 PR5551K
R7 220
R9 220
R13 220
R14 220
R16 220
R18 220
R20 220
R21 220
R22 220
IC4 SN74HC165ANS
5V
CN461
SST.103-5
KEY DATA
SST.103-6
KEY LOAD
QH
Q/H
CK
S/L
CK INH
SI
R23 10k
R24 10k
R25 10k
R26 10k
R27 10k
R28 10k
R29 10k
R30 10k
R40 1k
R41 1k
R42 1k
R43 1k
R44 1k
R45 1k
R46 1k
R47 1k
C2 220p
C3 220p
C4 220p
C5 220p
C6 220p
C7 220p
C8 220p
C9 220p
KEY_DATA7
KEY_DATA6
KEY_DATA5
KEY_DATA4
KEY_DATA3
KEY_DATA2
KEY_DATA1
KEY_DATA0
COLUMN0
COLUMN1
COLUMN2
COLUMN3
COLUMN4
EJECT S8
SET S16
PAUSE S7
DOWN S15
SEARCH S6
UP S14
REW S5
MENU S13
F FWD S4
ADVANCE S12
REC S3
SHIFT S11
PLAY S2
RESET S10
STOP S1
A-DUB S9
D1 DAP202U
D2 DAP202U
D3 DAP202U
D4 DAP202U
D5 DAP202U
D6 DAP202U
D7 DAP202U
D8 DAP202U
REAL TIME
VITC
LTC
S22
REAL TIME REC
ON
OFF
SET
S21
VITC A
S24
RUN MODE
F-RUN
R-RUN
S20
VITC REC
S19
VITC B
S23
TC DISPLAY
S18
DIAG
S17
D9 DAP202U
D10 DAP202U
D11 DAP202U
D12 DAP202U
D13 DAP202U
D14 DAP202U
D15 DAP202U
D16 DAP202U
KEY INHI
S28
DISPLAY
CTL
TC
UB
S27
DF
*1 S26
EXT
INT
S25
D17 DAP202U
D18 DAP202U
D19 DAP202U
D20 DAP202U
D21 DAP202U
1
2
3
4
5
I
J
K
L
M
N
O
P

*1 REF No.	NTSC	PAL
S26	MOUNT	NO MOUNT

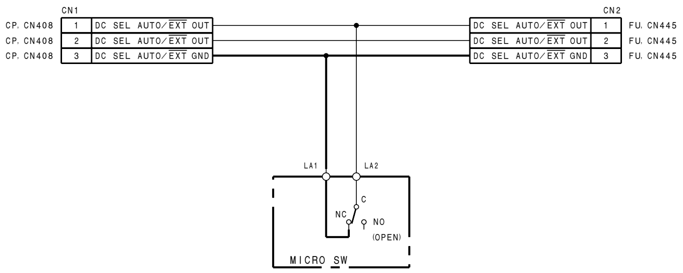
NOTE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R6, 11, 15 220 → 68 R5 1k → 33 R4 2700 → 470 D23 Deleted Q2 2SD2114KT146 → DTC1614-T1XL	S/N30051~

KY-315
BOARD NO. 1-657-807-11
LOT NO. 812-
HDW-250_KY-315_011_1

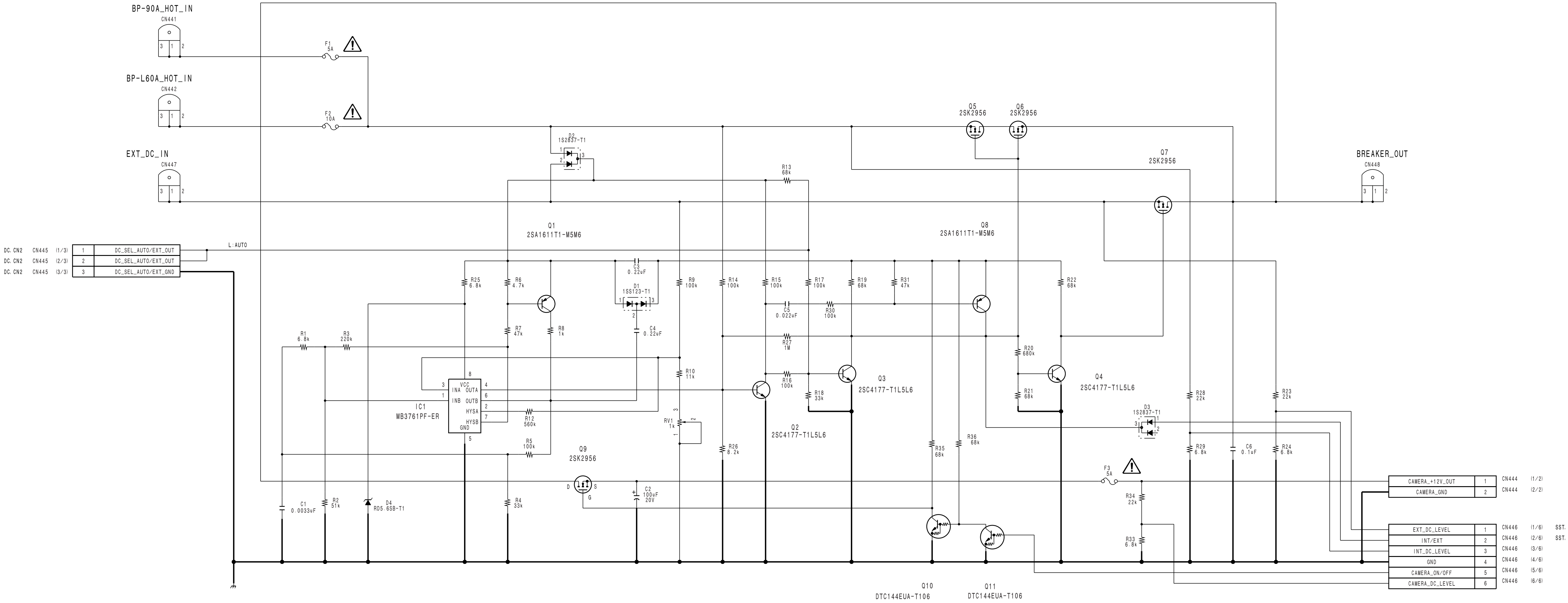
DC-85, FU-76

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


CN1
CP. CN408
1 DC SEL AUTO/EXT OUT
2 DC SEL AUTO/EXT OUT
3 DC SEL AUTO/EXT GND
CN2
FU. CN445
LA1
LA2
C
NC
NO
(OPEN)
MICRO SW

DC-85

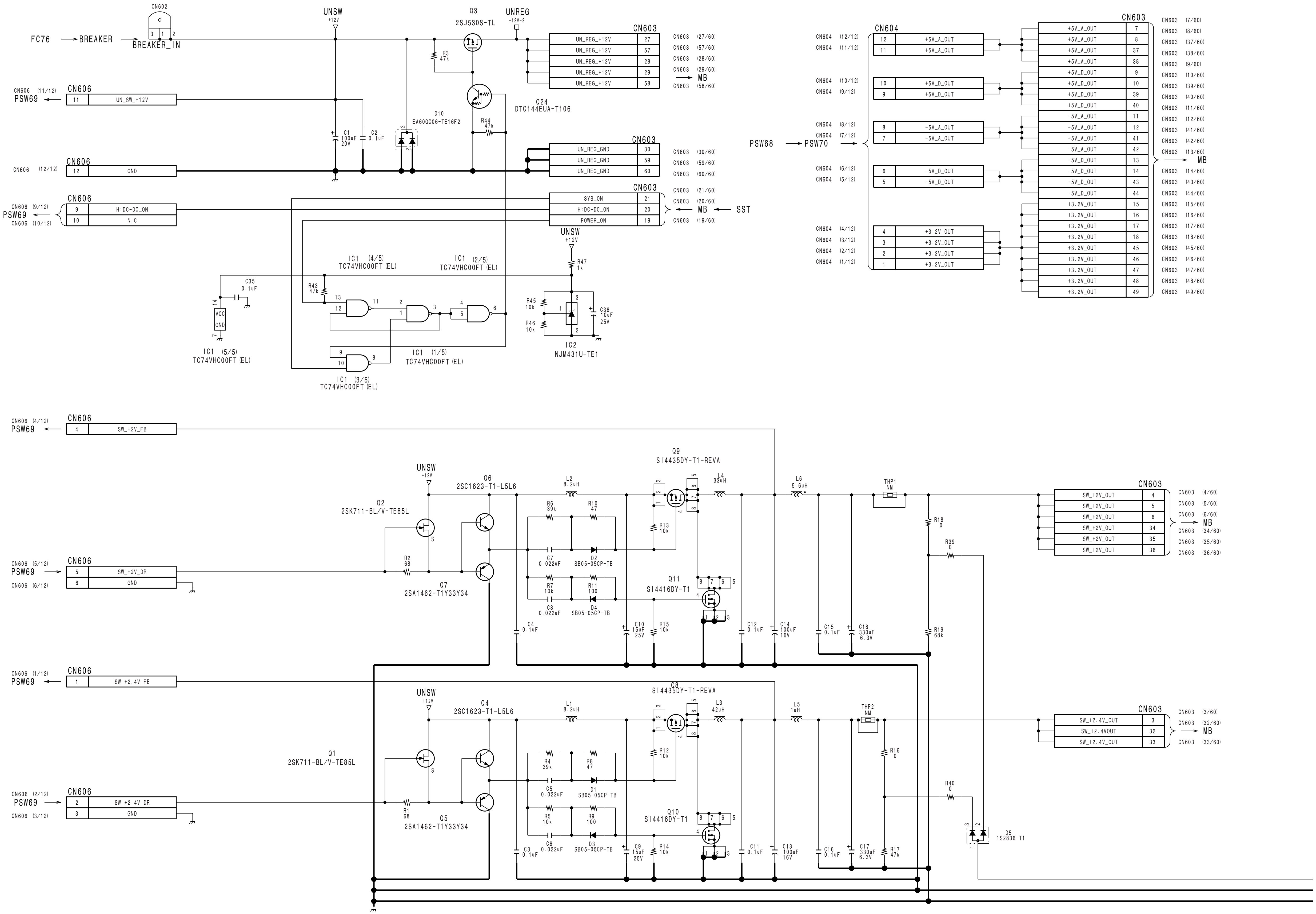
BOARD NO. 1-658-773-11
LOT NO. 812-
HDW-250_DC-85_011_1


BP-90A_HOT_IN
CN441
BP-L60A_HOT_IN
CN442
EXT_DC_IN
CN447
F1 5A
F2 10A
F3 5A
D2 1S2837-T1
D3 1S2837-T1
Q5 2SK2956
Q6 2SK2956
Q7 2SK2956
Q9 2SK2956
BREAKER_OUT
CN448
Q1 2SA1611T1-M5M6
Q8 2SA1611T1-M5M6
Q2 2SC4177-T1L5L6
Q3 2SC4177-T1L5L6
Q4 2SC4177-T1L5L6
Q10 DTC144EUA-T106
Q11 DTC144EUA-T106
IC1 MB3761PF-ER
D1 1SS123-T1
D4 RD5.6SB-T1
RV1 1k
L:AUTO
DC. CN2 CN445 (1/3) 1 DC_SEL_AUTO/EXT_OUT
DC. CN2 CN445 (2/3) 2 DC_SEL_AUTO/EXT_OUT
DC. CN2 CN445 (3/3) 3 DC_SEL_AUTO/EXT_GND
CAMERA_+12V_OUT 1 CN444 (1/2)
CAMERA_GND 2 CN444 (2/2)
EXT_DC_LEVEL 1 CN446 (1/6) SST. CN115
INT/EXT 2 CN446 (2/6) SST. CN115
INT_DC_LEVEL 3 CN446 (3/6)
GND 4 CN446 (4/6)
CAMERA_ON/OFF 5 CN446 (5/6)
CAMERA_DC_LEVEL 6 CN446 (6/6)

FU-76

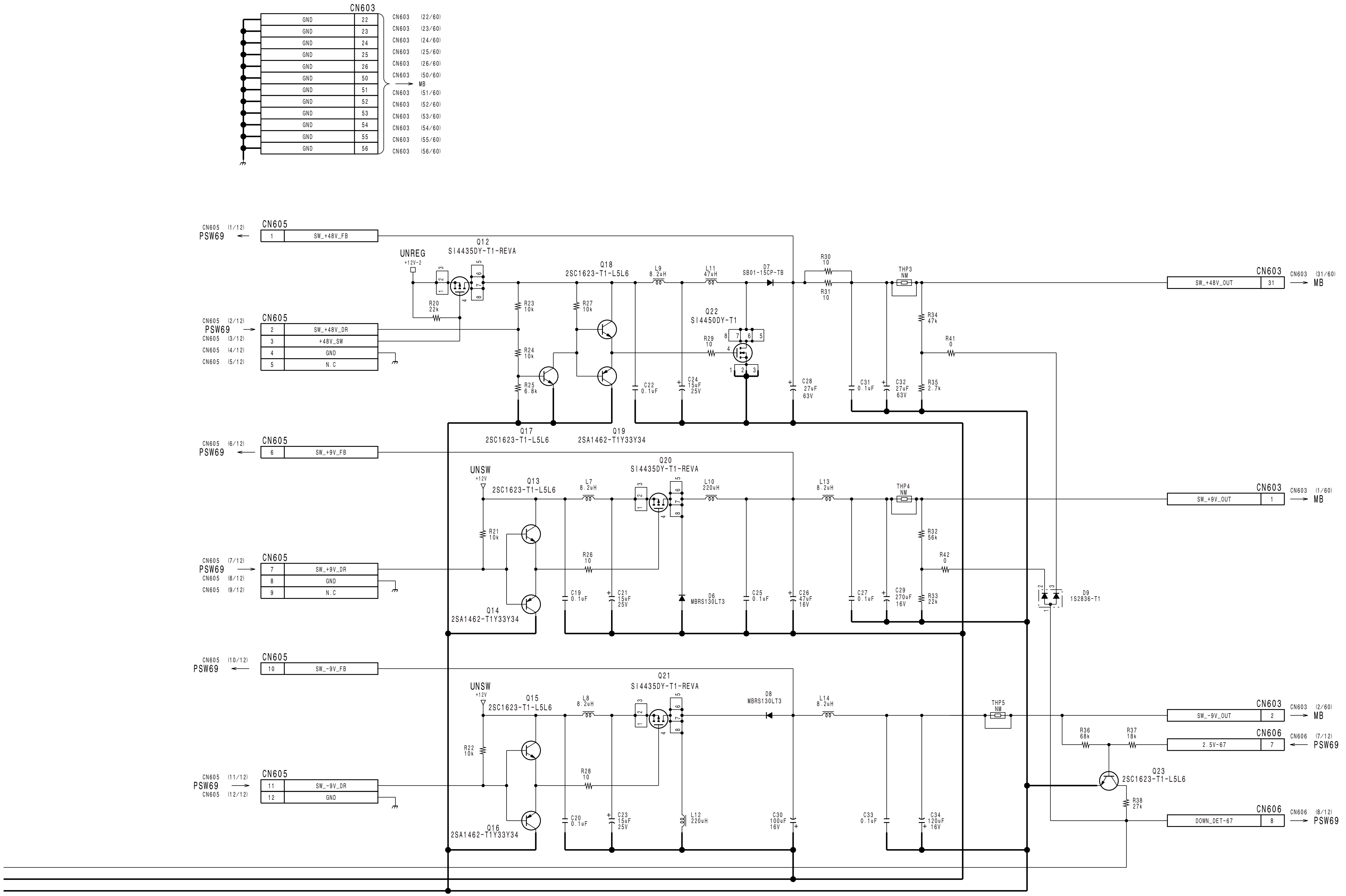
BOARD NO. 1-673-087-12/-13
LOT NO. 812-
HDW-250_FU-76_012_1

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


FC76
BREAKER
CN602
BREAKER_IN
UNSW
+12V
Q3
2SJ530S-TL
UNREG
+12V-2
R3
47k
Q24
DTC144EUA-T106
R44
47k
D10
EA60QC06-TE16F2
C1
100uF
20V
C2
0.1uF
CN603
UN_REG_+12V
UN_REG_GND
SYS_ON
H:DC-DC_ON
POWER_ON
MB
SST
CN606
PSW69
UN_SW_+12V
GND
N.C
C35
0.1uF
VCC
GND
IC1 (4/5)
TC74VHC00FT(EL)
IC1 (2/5)
TC74VHC00FT(EL)
IC1 (5/5)
TC74VHC00FT(EL)
IC1 (1/5)
TC74VHC00FT(EL)
IC1 (3/5)
TC74VHC00FT(EL)
R43
47k
R47
1k
R45
10k
R46
10k
C36
10uF
25V
IC2
NJM431U-TE1
PSW68
PSW70
CN604
+5V_A_OUT
+5V_D_OUT
-5V_A_OUT
-5V_D_OUT
+3.2V_OUT
SW_+2V_FB
SW_+2V_DR
SW_+2.4V_FB
SW_+2.4V_DR
Q9
SI4435DY-T1-REVA
Q8
SI4435DY-T1-REVA
Q6
2SC1623-T1-L5L6
Q4
2SC1623-T1-L5L6
Q2
2SK711-BL/V-TE85L
Q1
2SK711-BL/V-TE85L
Q7
2SA1462-T1Y33Y34
Q5
2SA1462-T1Y33Y34
Q11
SI4416DY-T1
Q10
SI4416DY-T1
L2
8.2uH
L1
8.2uH
L4
33uH
L3
42uH
L6
5.6uH
L5
1uH
THP1
NM
THP2
NM
R6
39k
R10
47
R4
39k
R8
47
R13
10k
R12
10k
C7
0.022uF
C5
0.022uF
D2
SB05-05CP-TB
D1
SB05-05CP-TB
R7
10k
R11
100
R5
10k
R9
100
C8
0.022uF
C6
0.022uF
D4
SB05-05CP-TB
D3
SB05-05CP-TB
R2
68
R1
68
C4
0.1uF
C3
0.1uF
C10
15uF
25V
C9
15uF
25V
R15
10k
R14
10k
C12
0.1uF
C11
0.1uF
C14
100uF
16V
C13
100uF
16V
C15
0.1uF
C16
0.1uF
C18
330uF
6.3V
C17
330uF
6.3V
R18
0
R39
0
R19
68k
R16
0
R40
0
R17
47k
D5
1S2836-T1
SW_+2V_OUT
SW_+2.4V_OUT
SW_+2.4VOUT

1 2 3 4 5

A B C D E F G H

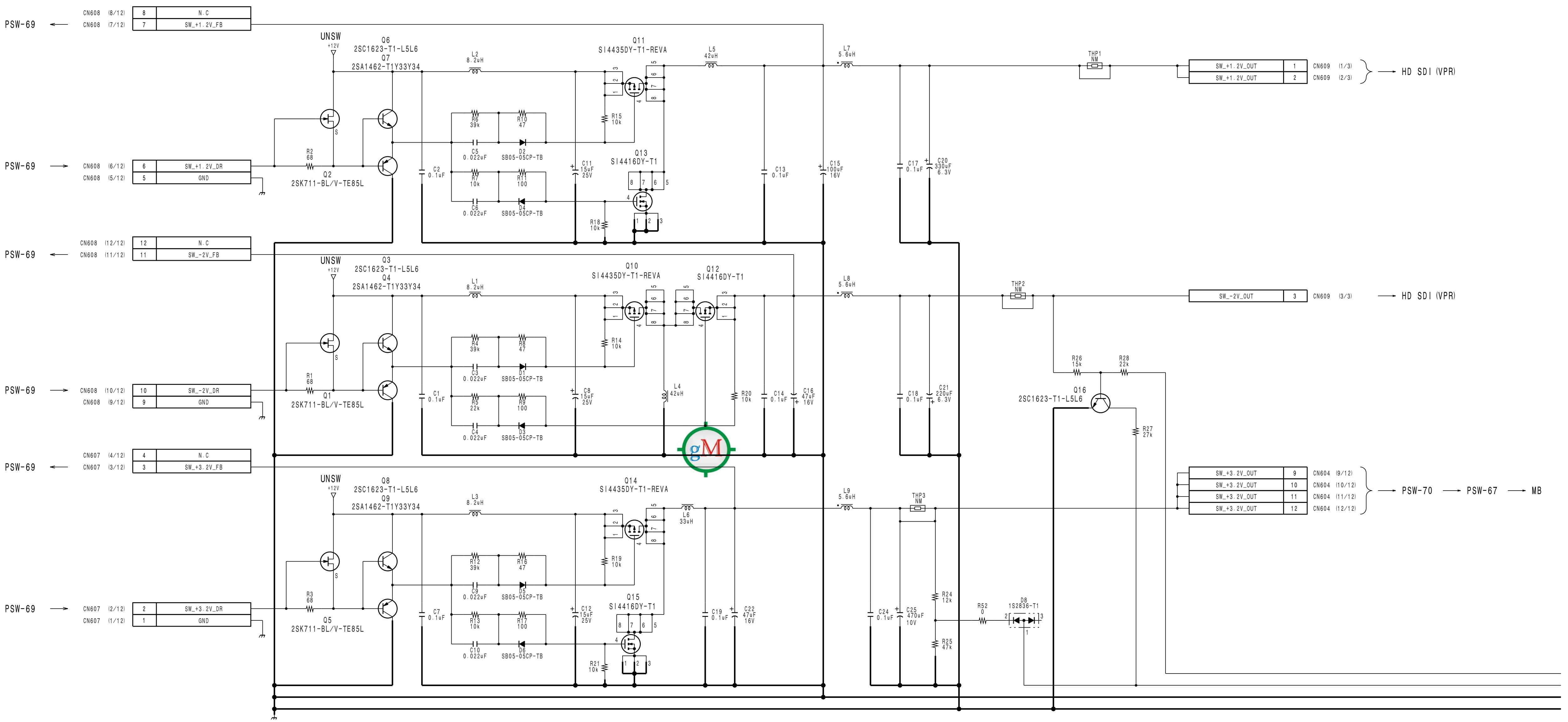

CN603
GND 22 CN603 (22/60)
GND 23 CN603 (23/60)
GND 24 CN603 (24/60)
GND 25 CN603 (25/60)
GND 26 CN603 (26/60)
GND 50 CN603 (50/60)
MB
GND 51 CN603 (51/60)
GND 52 CN603 (52/60)
GND 53 CN603 (53/60)
GND 54 CN603 (54/60)
GND 55 CN603 (55/60)
GND 56 CN603 (56/60)
CN605 (1/12) PSW69
CN605 1 SW_+48V_FB
UNREG +12V-2
Q12 SI4435DY-T1-REVA
R20 22k
CN605 (2/12) PSW69
CN605 (3/12)
CN605 (4/12)
CN605 (5/12)
CN605 2 SW_+48V_DR
3 +48V_SW
4 GND
5 N.C
Q18 2SC1623-T1-L5L6
R23 10k
R27 10k
R24 10k
R25 6.8k
Q17 2SC1623-T1-L5L6
Q19 2SA1462-T1Y33Y34
L9 8.2uH
L11 47uH
D7 SB01-15CP-TB
Q22 SI4450DY-T1
R29 10
C22 0.1uF
C24 15uF 25V
C28 27uF 63V
R30 10
R31 10
THP3 NM
R34 47k
R41 0
R35 2.7k
C31 0.1uF
C32 27uF 63V
CN603 SW_+48V_OUT 31 CN603 (31/60) MB
CN605 (6/12) PSW69
CN605 6 SW_+9V_FB
UNSW +12V
Q13 2SC1623-T1-L5L6
R21 10k
Q20 SI4435DY-T1-REVA
L7 8.2uH
L10 220uH
L13 8.2uH
THP4 NM
R26 10
CN605 (7/12) PSW69
CN605 (8/12)
CN605 (9/12)
CN605 7 SW_+9V_DR
8 GND
9 N.C
Q14 2SA1462-T1Y33Y34
C19 0.1uF
C21 15uF 25V
D6 MBRS130LT3
C25 0.1uF
C26 47uF 16V
C27 0.1uF
C29 270uF 16V
R32 56k
R42 0
R33 22k
D9 1S2836-T1
CN603 SW_+9V_OUT 1 CN603 (1/60) MB
CN605 (10/12) PSW69
CN605 10 SW_-9V_FB
UNSW +12V
Q15 2SC1623-T1-L5L6
Q21 SI4435DY-T1-REVA
L8 8.2uH
D8 MBRS130LT3
L14 8.2uH
THP5 NM
R22 10k
R28 10
CN605 (11/12) PSW69
CN605 (12/12)
CN605 11 SW_-9V_DR
12 GND
Q16 2SA1462-T1Y33Y34
C20 0.1uF
C23 15uF 25V
L12 220uH
C30 100uF 16V
C33 0.1uF
C34 120uF 16V
CN603 SW_-9V_OUT 2 CN603 (2/60) MB
R36 68k
R37 18k
CN606 2.5V-67 7 CN606 (7/12) PSW69
Q23 2SC1623-T1-L5L6
R38 27k
CN606 DOWN_DET-67 8 CN606 (8/12) PSW69

PSW-67

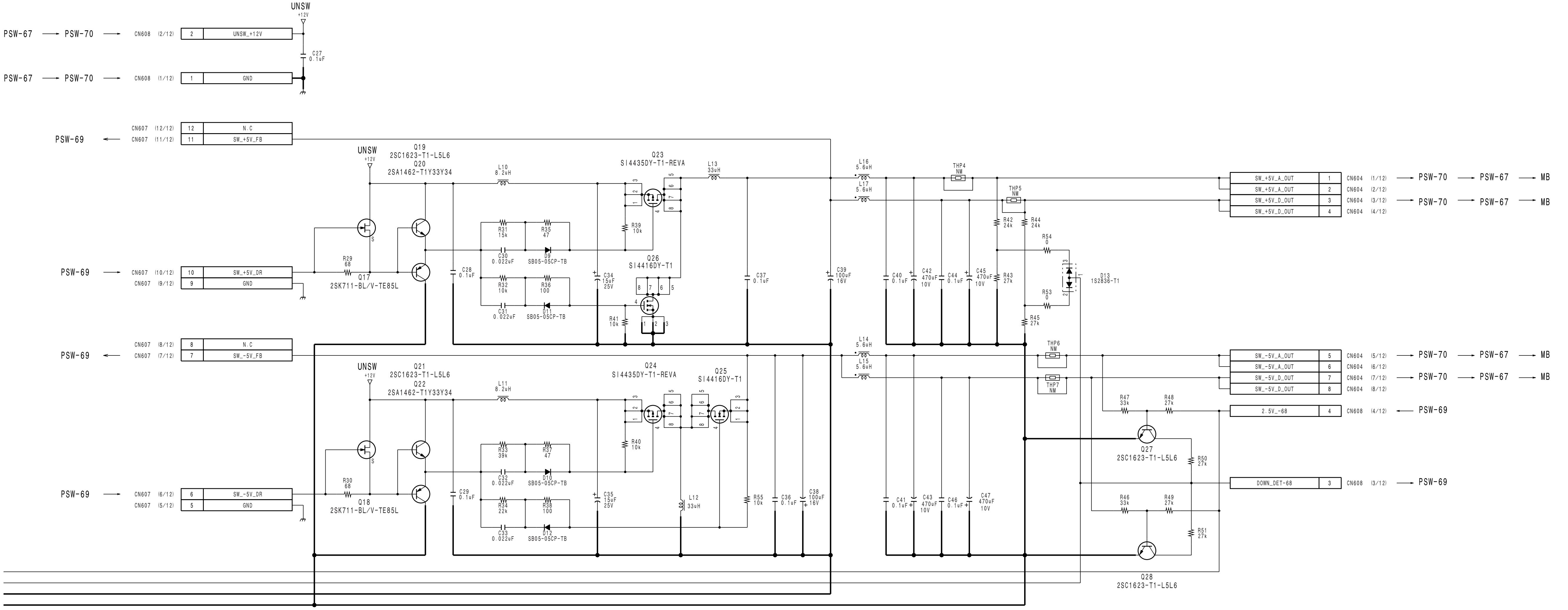
BOARD NO. 1-673-092-13
LOT NO. 812-
HDW-250_PSW-67_013_1

PSW-68

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


PSW-69
CN608 (8/12) 8 N.C
CN608 (7/12) 7 SW_+1.2V_FB
PSW-69
CN608 (6/12) 6 SW_+1.2V_DR
CN608 (5/12) 5 GND
PSW-69
CN608 (12/12) 12 N.C
CN608 (11/12) 11 SW_-2V_FB
PSW-69
CN608 (10/12) 10 SW_-2V_DR
CN608 (9/12) 9 GND
PSW-69
CN607 (4/12) 4 N.C
CN607 (3/12) 3 SW_+3.2V_FB
PSW-69
CN607 (2/12) 2 SW_+3.2V_DR
CN607 (1/12) 1 GND
UNSW +12V
Q6 2SC1623-T1-L5L6
Q7 2SA1462-T1Y33Y34
R2 68
Q2 2SK711-BL/V-TE85L
L2 8.2uH
C2 0.1uF
R6 39k
R10 47
C5 0.022uF
D2 SB05-05CP-TB
R7 10k
R11 100
C6 0.022uF
D4 SB05-05CP-TB
C11 15uF 25V
Q11 SI4435DY-T1-REVA
R15 10k
Q13 SI4416DY-T1
R18 10k
L5 42uH
C13 0.1uF
C15 100uF 16V
L7 5.6uH
C17 0.1uF
C20 330uF 6.3V
THP1 NM
SW_+1.2V_OUT 1 CN609 (1/3)
SW_+1.2V_OUT 2 CN609 (2/3)
HD SDI (VPR)
UNSW +12V
Q3 2SC1623-T1-L5L6
Q4 2SA1462-T1Y33Y34
R1 68
Q1 2SK711-BL/V-TE85L
L1 8.2uH
C1 0.1uF
R4 39k
R8 47
C3 0.022uF
D1 SB05-05CP-TB
R5 22k
R9 100
C4 0.022uF
D3 SB05-05CP-TB
C8 15uF 25V
Q10 SI4435DY-T1-REVA
Q12 SI4416DY-T1
R14 10k
L4 42uH
R20 10k
C14 0.1uF
C16 47uF 16V
L8 5.6uH
C18 0.1uF
C21 220uF 6.3V
THP2 NM
SW_-2V_OUT 3 CN609 (3/3)
HD SDI (VPR)
R26 15k
R28 22k
Q16 2SC1623-T1-L5L6
R27 27k
UNSW +12V
Q8 2SC1623-T1-L5L6
Q9 2SA1462-T1Y33Y34
R3 68
Q5 2SK711-BL/V-TE85L
L3 8.2uH
C7 0.1uF
R12 39k
R16 47
C9 0.022uF
D5 SB05-05CP-TB
R13 10k
R17 100
C10 0.022uF
D6 SB05-05CP-TB
C12 15uF 25V
Q14 SI4435DY-T1-REVA
R19 10k
Q15 SI4416DY-T1
R21 10k
L6 33uH
C19 0.1uF
C22 47uF 16V
L9 5.6uH
THP3 NM
C24 0.1uF
C25 470uF 10V
R24 12k
R25 47k
R52 0
D8 1S2836-T1
SW_+3.2V_OUT 9 CN604 (9/12)
SW_+3.2V_OUT 10 CN604 (10/12)
SW_+3.2V_OUT 11 CN604 (11/12)
SW_+3.2V_OUT 12 CN604 (12/12)
PSW-70
PSW-67
MB

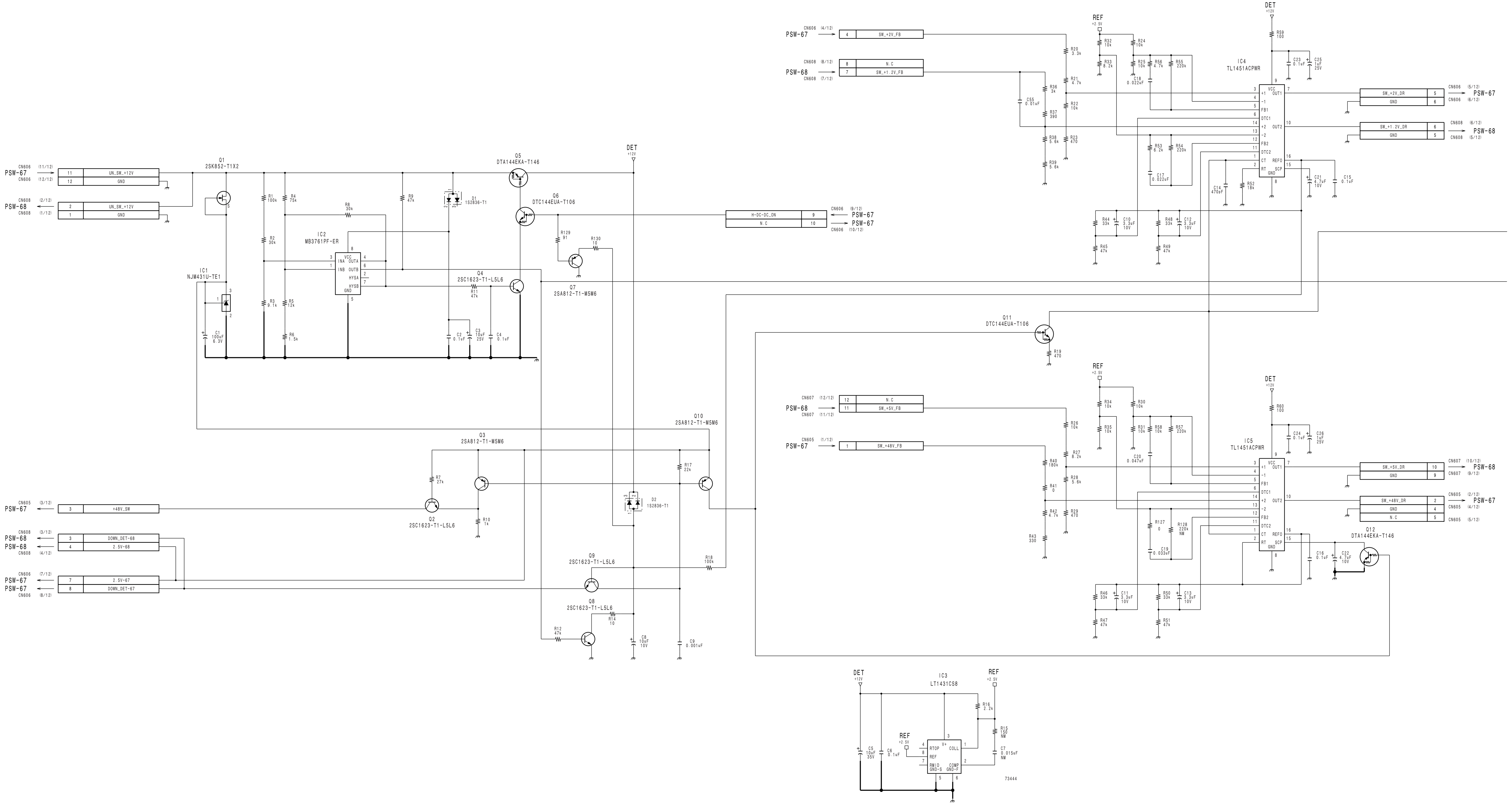
5-110

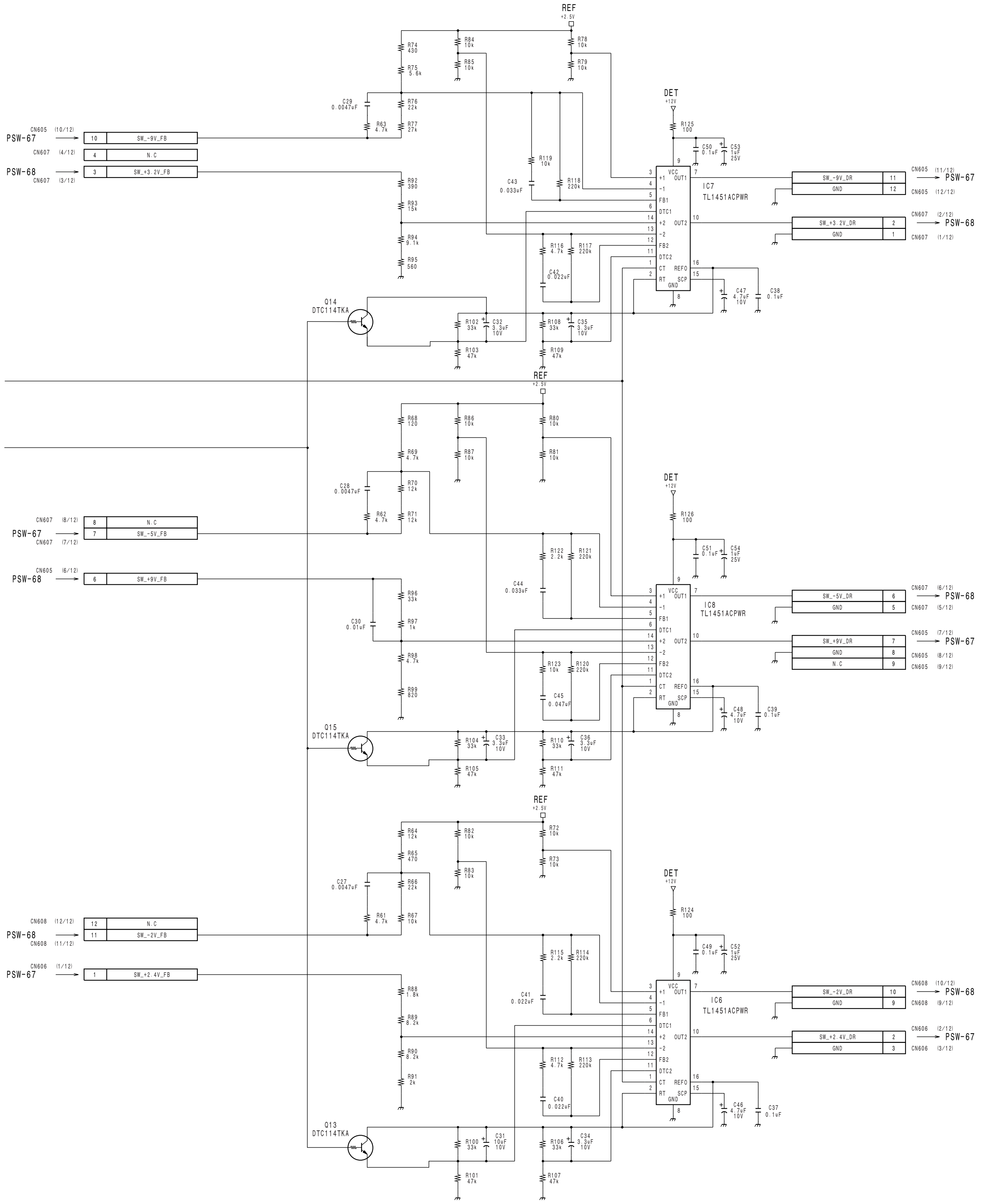

UNSW
+12V
PSW-67 → PSW-70 → CN608 (2/12) 2 UNSW_+12V
C27 0.1uF
PSW-67 → PSW-70 → CN608 (1/12) 1 GND
CN607 (12/12) 12 N.C
PSW-69 ← CN607 (11/12) 11 SW_+5V_FB
Q19 2SC1623-T1-L5L6
Q20 2SA1462-T1Y33Y34
L10 8.2uH
Q23 SI4435DY-T1-REVA
L13 33uH
L16 5.6uH
L17 5.6uH
THP4 NM
THP5 NM
R31 15k
R35 47
C30 0.022uF
D9 SB05-05CP-TB
R39 10k
R32 10k
R36 100
C31 0.022uF
D11 SB05-05CP-TB
Q26 SI4416DY-T1
R41 10k
R29 68
Q17 2SK711-BL/V-TE85L
PSW-69 → CN607 (10/12) 10 SW_+5V_DR
CN607 (9/12) 9 GND
C28 0.1uF
C34 15uF 25V
C37 0.1uF
C39 100uF 16V
C40 0.1uF
C42 470uF 10V
C44 0.1uF
C45 470uF 10V
R42 24k
R43 27k
R44 24k
R54 0
R53 0
R45 27k
D13 1S2836-T1
SW_+5V_A_OUT 1 CN604 (1/12) → PSW-70 → PSW-67 → MB
SW_+5V_A_OUT 2 CN604 (2/12)
SW_+5V_D_OUT 3 CN604 (3/12) → PSW-70 → PSW-67 → MB
SW_+5V_D_OUT 4 CN604 (4/12)
CN607 (8/12) 8 N.C
PSW-69 ← CN607 (7/12) 7 SW_-5V_FB
Q21 2SC1623-T1-L5L6
Q22 2SA1462-T1Y33Y34
L11 8.2uH
Q24 SI4435DY-T1-REVA
Q25 SI4416DY-T1
L14 5.6uH
L15 5.6uH
THP6 NM
THP7 NM
R33 39k
R37 47
C32 0.022uF
D10 SB05-05CP-TB
R40 10k
R34 22k
R38 100
C33 0.022uF
D12 SB05-05CP-TB
R30 68
Q18 2SK711-BL/V-TE85L
PSW-69 → CN607 (6/12) 6 SW_-5V_DR
CN607 (5/12) 5 GND
C29 0.1uF
C35 15uF 25V
L12 33uH
R55 10k
C36 0.1uF
C38 100uF 16V
C41 0.1uF
C43 470uF 10V
C46 0.1uF
C47 470uF 10V
SW_-5V_A_OUT 5 CN604 (5/12) → PSW-70 → PSW-67 → MB
SW_-5V_A_OUT 6 CN604 (6/12)
SW_-5V_D_OUT 7 CN604 (7/12) → PSW-70 → PSW-67 → MB
SW_-5V_D_OUT 8 CN604 (8/12)
R47 33k
R48 27k
2.5V_-68 4 CN608 (4/12) ← PSW-69
Q27 2SC1623-T1-L5L6
R50 27k
DOWN_DET-68 3 CN608 (3/12) → PSW-69
R46 33k
R49 27k
R51 27k
Q28 2SC1623-T1-L5L6

PSW-68

BOARD NO. 1-673-093-11
LOT NO. 812-
HDW-250_PSW-68_011_1

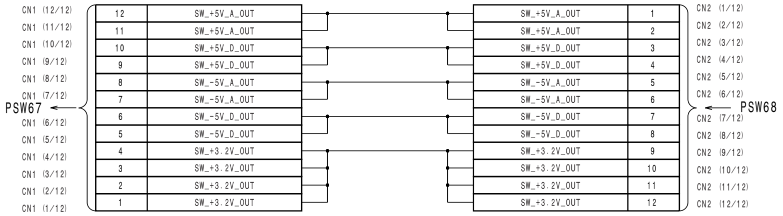
HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher


1
2
3
4
5
PSW-67 CN606 (11/12) 11 UN_SW_+12V
CN606 (12/12) 12 GND
PSW-68 CN608 (2/12) 2 UN_SW_+12V
CN608 (1/12) 1 GND
Q1 2SK852-T1X2
IC1 NJM431U-TE1
C1 100uF 6.3V
R1 100k
R2 30k
R3 9.1k
R4 75k
R5 12k
R6 1.5k
R8 30k
IC2 MB3761PF-ER
VCC INA INB OUTA OUTB HYSA HYSB GND
R9 47k
D1 1S2836-T1
C2 0.1uF
C3 10uF 25V
C4 0.1uF
Q4 2SC1623-T1-L5L6
R11 47k
Q5 DTA144EKA-T146
Q6 DTC144EUA-T106
R129 91
R130 10
Q7 2SA812-T1-M5M6
DET +12V
H-DC-DC_ON 9 CN606 (9/12) PSW-67
N.C 10 CN606 (10/12) PSW-67
PSW-67 CN606 (4/12) 4 SW_+2V_FB
PSW-68 CN608 (8/12) 8 N.C
CN608 (7/12) 7 SW_+1.2V_FB
R20 3.3k
R21 4.7k
R22 10k
R23 470
R36 3k
R37 390
R38 5.6k
R39 5.6k
C55 0.01uF
REF +2.5V
R32 10k
R33 8.2k
R24 10k
R25 10k
R56 4.7k
R55 220k
C18 0.022uF
R53 6.2k
R54 220k
C17 0.022uF
IC4 TL1451ACPWR
VCC +1 -1 FB1 DTC1 +2 -2 FB2 DTC2 CT RT GND OUT1 OUT2 REFO SCP
R59 100
C23 0.1uF
C25 1uF 25V
C14 470pF
R52 18k
C21 4.7uF 10V
C15 0.1uF
R44 33k
C10 3.3uF 10V
R45 47k
R48 33k
C12 3.3uF 10V
R49 47k
SW_+2V_DR 5 CN606 (5/12) PSW-67
GND 6 CN606 (6/12)
SW_+1.2V_DR 6 CN608 (6/12) PSW-68
GND 5 CN608 (5/12)
Q11 DTC144EUA-T106
R19 470
PSW-68 CN607 (12/12) 12 N.C
CN607 (11/12) 11 SW_+5V_FB
PSW-67 CN605 (1/12) 1 SW_+48V_FB
R26 10k
R27 8.2k
R28 5.6k
R29 470
R40 180k
R41 0
R42 4.7k
R43 330
R34 10k
R35 10k
R30 10k
R31 10k
R58 10k
R57 220k
C20 0.047uF
R127 0
R128 220k NM
C19 0.033uF
IC5 TL1451ACPWR
R60 100
C24 0.1uF
C26 1uF 25V
C16 0.1uF
C22 4.7uF 10V
Q12 DTA144EKA-T146
R46 33k
C11 3.3uF 10V
R47 47k
R50 33k
C13 3.3uF 10V
R51 47k
SW_+5V_DR 10 CN607 (10/12) PSW-68
GND 9 CN607 (9/12)
SW_+48V_DR 2 CN605 (2/12) PSW-67
GND 4 CN605 (4/12)
N.C 5 CN605 (5/12)
Q10 2SA812-T1-M5M6
Q3 2SA812-T1-M5M6
R7 27k
R10 1k
Q2 2SC1623-T1-L5L6
PSW-67 CN605 (3/12) 3 +48V_SW
PSW-68 CN608 (3/12) 3 DOWN_DET-68
PSW-68 CN608 (4/12) 4 2.5V-68
PSW-67 CN606 (7/12) 7 2.5V-67
PSW-67 CN606 (8/12) 8 DOWN_DET-67
R17 22k
D2 1S2836-T1
Q9 2SC1623-T1-L5L6
R18 100k
Q8 2SC1623-T1-L5L6
R14 10
R12 47k
C8 10uF 10V
C9 0.001uF
IC3 LT1431CS8
V+ RTOP REF RMID GND-S COLL COMP GND-F
C5 10uF 35V
C6 0.1uF
R16 2.2k
R15 150 NM
C7 0.015uF NM
73444
A
B
C
D
E
F
G
H


PSW-67
PSW-68
CN605 (10/12)
CN607 (4/12)
CN607 (3/12)
SW_-9V_FB
N.C
SW_+3.2V_FB
REF
DET
+12V
IC7
TL1451ACPWR
SW_-9V_DR
SW_+3.2V_DR
GND
Q14
DTC114TKA
CN607 (8/12)
CN607 (7/12)
CN605 (6/12)
SW_-5V_FB
SW_+9V_FB
IC8
TL1451ACPWR
SW_-5V_DR
SW_+9V_DR
Q15
DTC114TKA
CN608 (12/12)
CN608 (11/12)
CN606 (1/12)
SW_-2V_FB
SW_+2.4V_FB
IC6
TL1451ACPWR
SW_-2V_DR
SW_+2.4V_DR
Q13
DTC114TKA
VCC
OUT1
OUT2
FB1
FB2
DTC1
DTC2
CT
RT
REFO
SCP

PSW-69

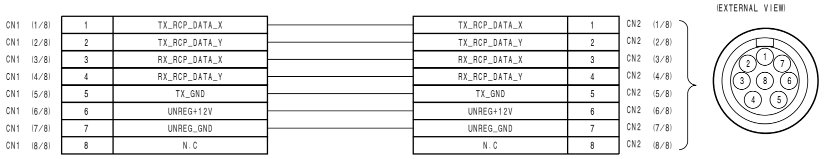
BOARD NO. 1-673-094-12
LOT NO. 812-
HDW-250_PSW-69_012_1


PSW67
PSW68
CN1 (12/12)
CN1 (11/12)
CN1 (10/12)
CN1 (9/12)
CN1 (8/12)
CN1 (7/12)
CN1 (6/12)
CN1 (5/12)
CN1 (4/12)
CN1 (3/12)
CN1 (2/12)
CN1 (1/12)
CN2 (1/12)
CN2 (2/12)
CN2 (3/12)
CN2 (4/12)
CN2 (5/12)
CN2 (6/12)
CN2 (7/12)
CN2 (8/12)
CN2 (9/12)
CN2 (10/12)
CN2 (11/12)
CN2 (12/12)

CN1 pin	Signal	Signal	CN2 pin
12	SW_+5V_A_OUT	SW_+5V_A_OUT	1
11	SW_+5V_A_OUT	SW_+5V_A_OUT	2
10	SW_+5V_D_OUT	SW_+5V_D_OUT	3
9	SW_+5V_D_OUT	SW_+5V_D_OUT	4
8	SW_-5V_A_OUT	SW_-5V_A_OUT	5
7	SW_-5V_A_OUT	SW_-5V_A_OUT	6
6	SW_-5V_D_OUT	SW_-5V_D_OUT	7
5	SW_-5V_D_OUT	SW_-5V_D_OUT	8
4	SW_+3.2V_OUT	SW_+3.2V_OUT	9
3	SW_+3.2V_OUT	SW_+3.2V_OUT	10
2	SW_+3.2V_OUT	SW_+3.2V_OUT	11
1	SW_+3.2V_OUT	SW_+3.2V_OUT	12

PSW-70

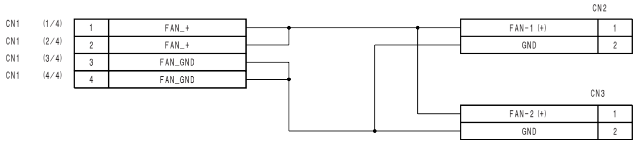
BOARD NO. 1-673-095-11
LOT NO. 812-
HDW-250_PSW-70_011_1


(EXTERNAL VIEW)
CN1 (1/8)
CN1 (2/8)
CN1 (3/8)
CN1 (4/8)
CN1 (5/8)
CN1 (6/8)
CN1 (7/8)
CN1 (8/8)
CN2 (1/8)
CN2 (2/8)
CN2 (3/8)
CN2 (4/8)
CN2 (5/8)
CN2 (6/8)
CN2 (7/8)
CN2 (8/8)
1
2
3
4
5
6
7
8

CN1 pin	Signal	Signal	CN2 pin
1	TX_RCP_DATA_X	TX_RCP_DATA_X	1
2	TX_RCP_DATA_Y	TX_RCP_DATA_Y	2
3	RX_RCP_DATA_X	RX_RCP_DATA_X	3
4	RX_RCP_DATA_Y	RX_RCP_DATA_Y	4
5	TX_GND	TX_GND	5
6	UNREG+12V	UNREG+12V	6
7	UNREG_GND	UNREG_GND	7
8	N.C	N.C	8

CN-1795

BOARD NO. 1-673-091-11
LOT NO. 812-
HDW-250_CN-1795_011_1

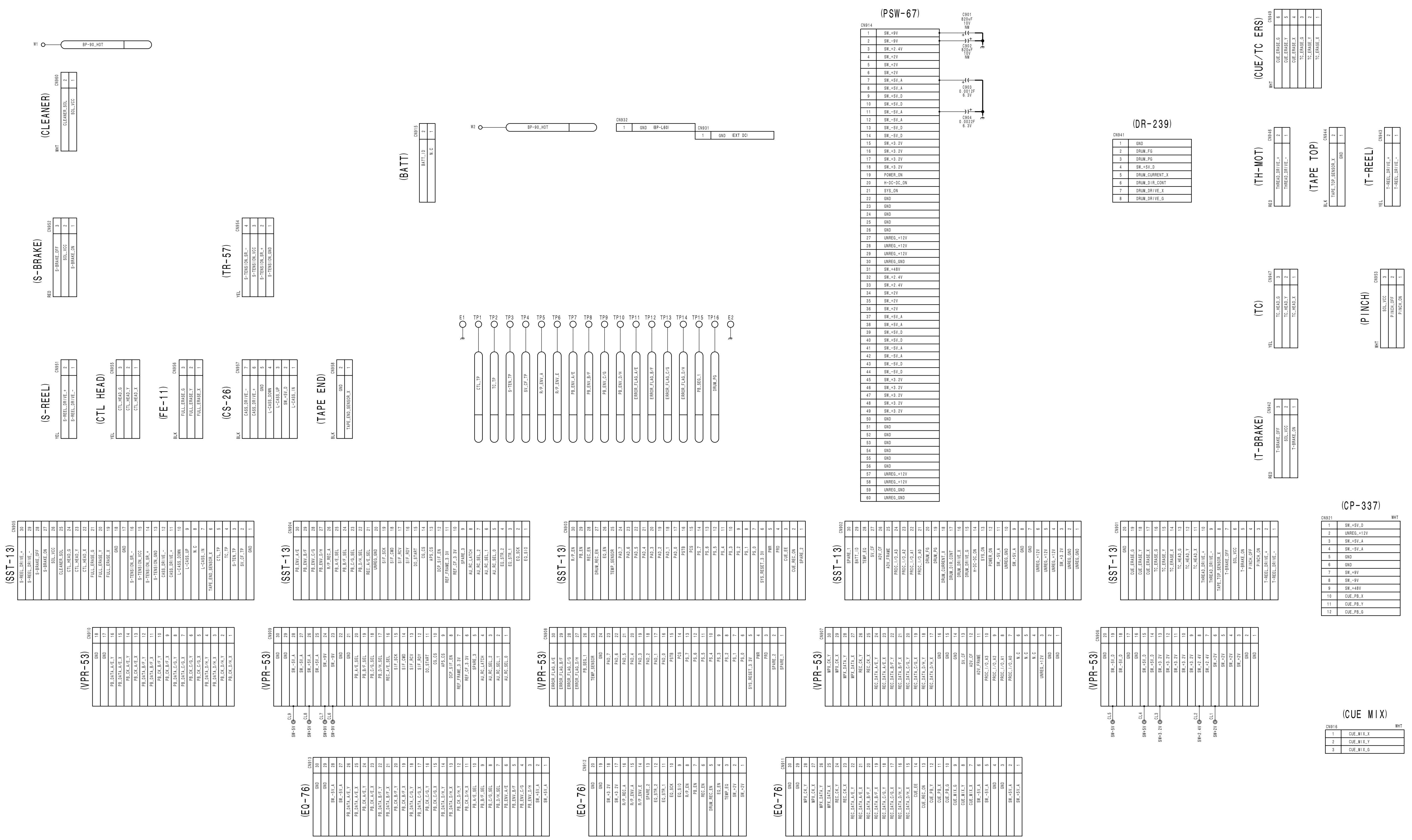

CN1 (1/4)
CN1 (2/4)
CN1 (3/4)
CN1 (4/4)
1 FAN_+
2 FAN_+
3 FAN_GND
4 FAN_GND
CN2
FAN-1 (+) 1
GND 2
CN3
FAN-2 (+) 1
GND 2

CN-1926

BOARD NO. 1-674-184-11
LOT NO. 812-
HDW-250_CN-1926_011_1

MB-825

HDW-250 (UC) : S/N 10001 and Higher
HDW-250 (J) : S/N 30001 and Higher

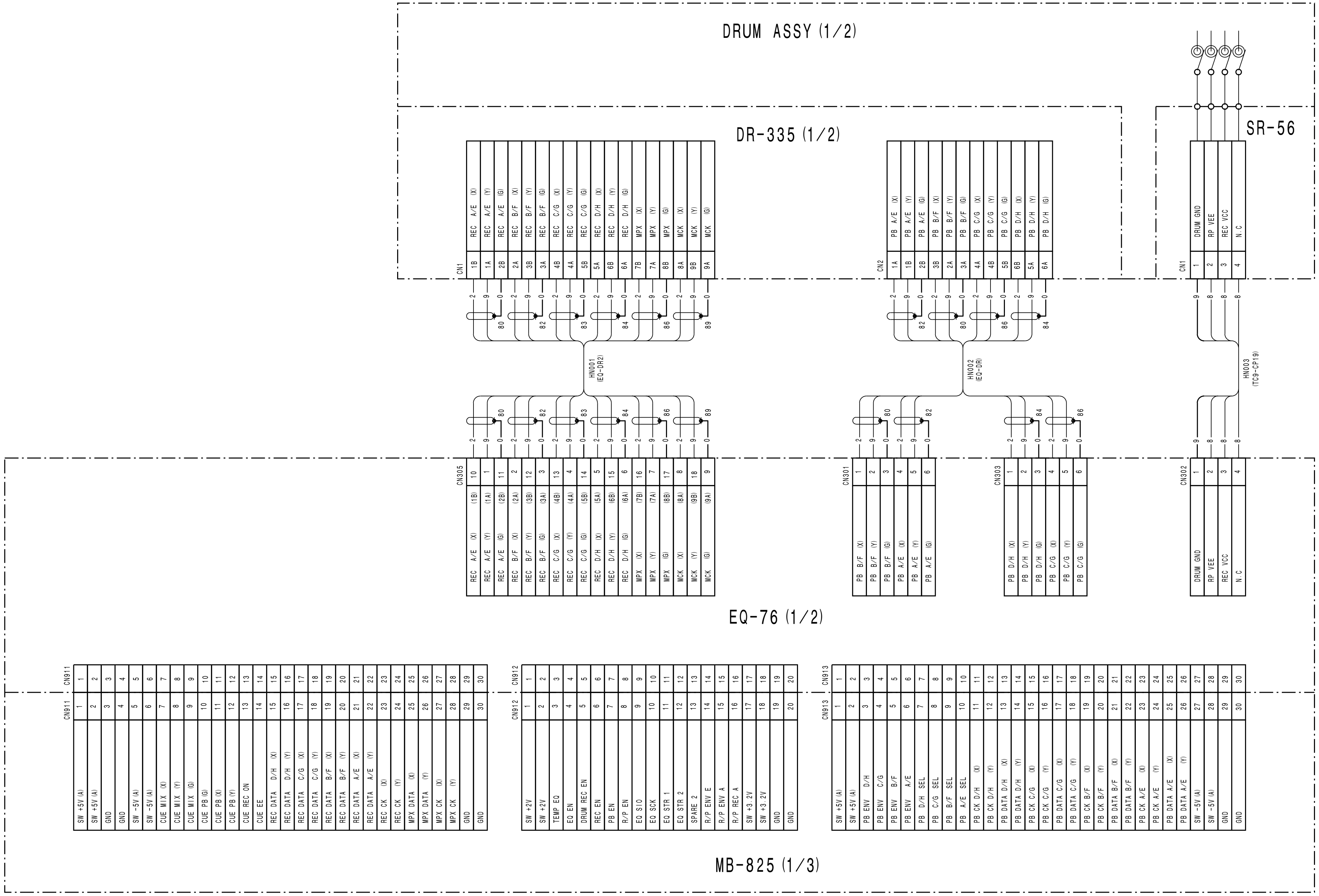

1
2
3
4
5
(CLEANER)
CN960
W1
BP-90_HOT
(S-BRAKE)
CN952
(TR-57)
CN954
(BATT)
CN915
W2
BP-90_HOT
CN932
GND (BP-L60)
CN931
GND (EXT DC)
(PSW-67)
CN914
C901
C902
C903
C904
(DR-239)
CN941
(CUE/TC ERS)
CN949
(TH-MOT)
CN946
(TAPE TOP)
CN944
(T-REEL)
CN943
(TC)
CN947
(PINCH)
CN953
(T-BRAKE)
CN942
(S-REEL)
CN951
(CTL HEAD)
CN955
(FE-11)
CN956
(CS-26)
CN957
(TAPE END)
CN958
E1
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
E2
(SST-13)
CN905
(SST-13)
CN904
(SST-13)
CN903
(SST-13)
CN902
(SST-13)
CN901
(CP-337)
CN921
(VPR-53)
CN910
(VPR-53)
CN909
(VPR-53)
CN908
(VPR-53)
CN907
(VPR-53)
CN906
(CUE MIX)
CN916
(EQ-76)
CN913
(EQ-76)
CN912
(EQ-76)
CN911
A
B
C
D
E
F
G
H

MB-825

BOARD NO. 1-673-083-11/-12
LOT NO. 812-
HDW-250_MB-825_011_1

5-114

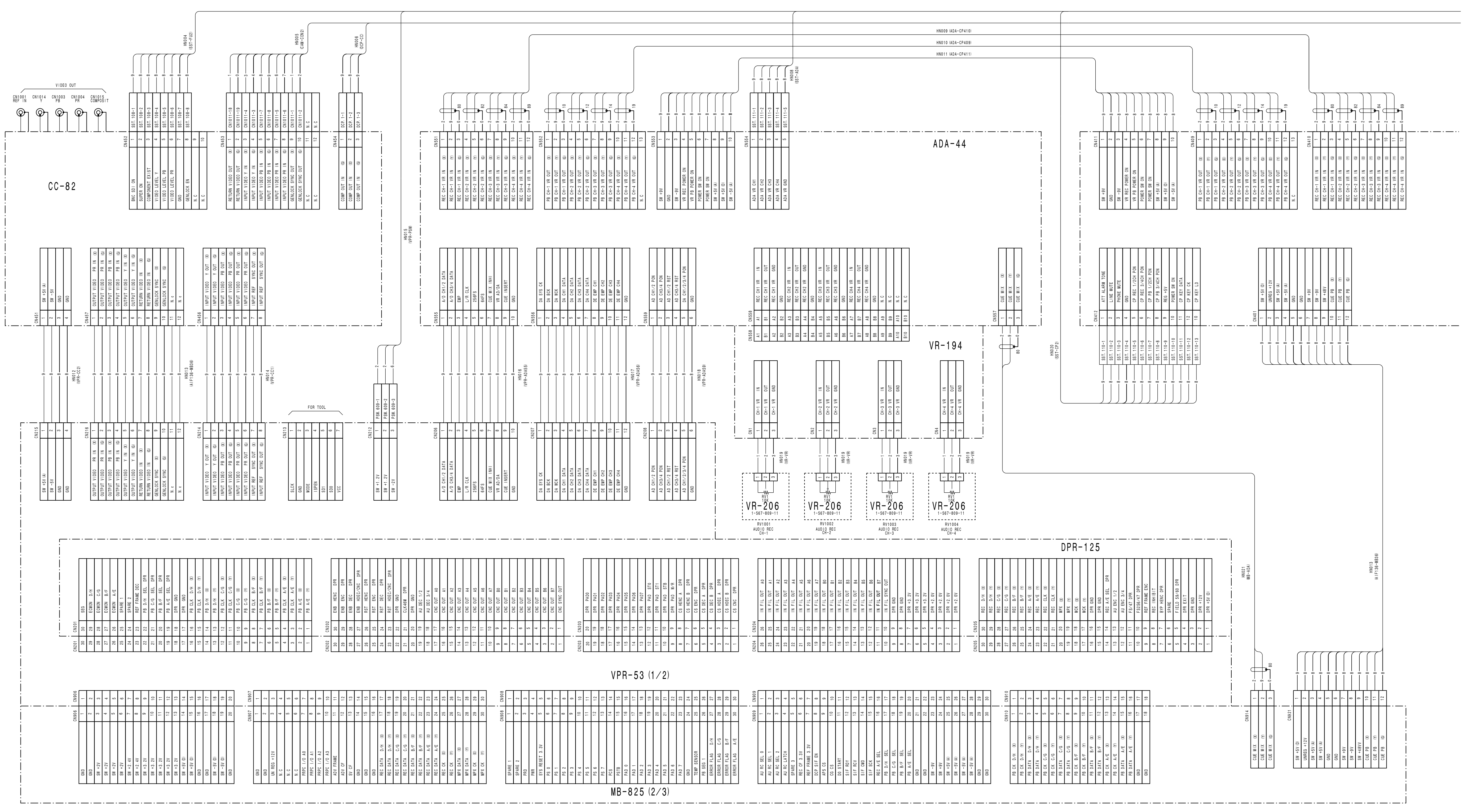
FRAME WIRING (1/3)


DRUM ASSY (1/2)
DR-335 (1/2)
SR-56
CN1
CN2
CN1
HN001 (EQ-DR2)
HN002 (EQ-DR)
HN003 (TC9-CP19)
CN305
CN301
CN303
CN302
EQ-76 (1/2)
CN911
CN912
CN913
MB-825 (1/3)

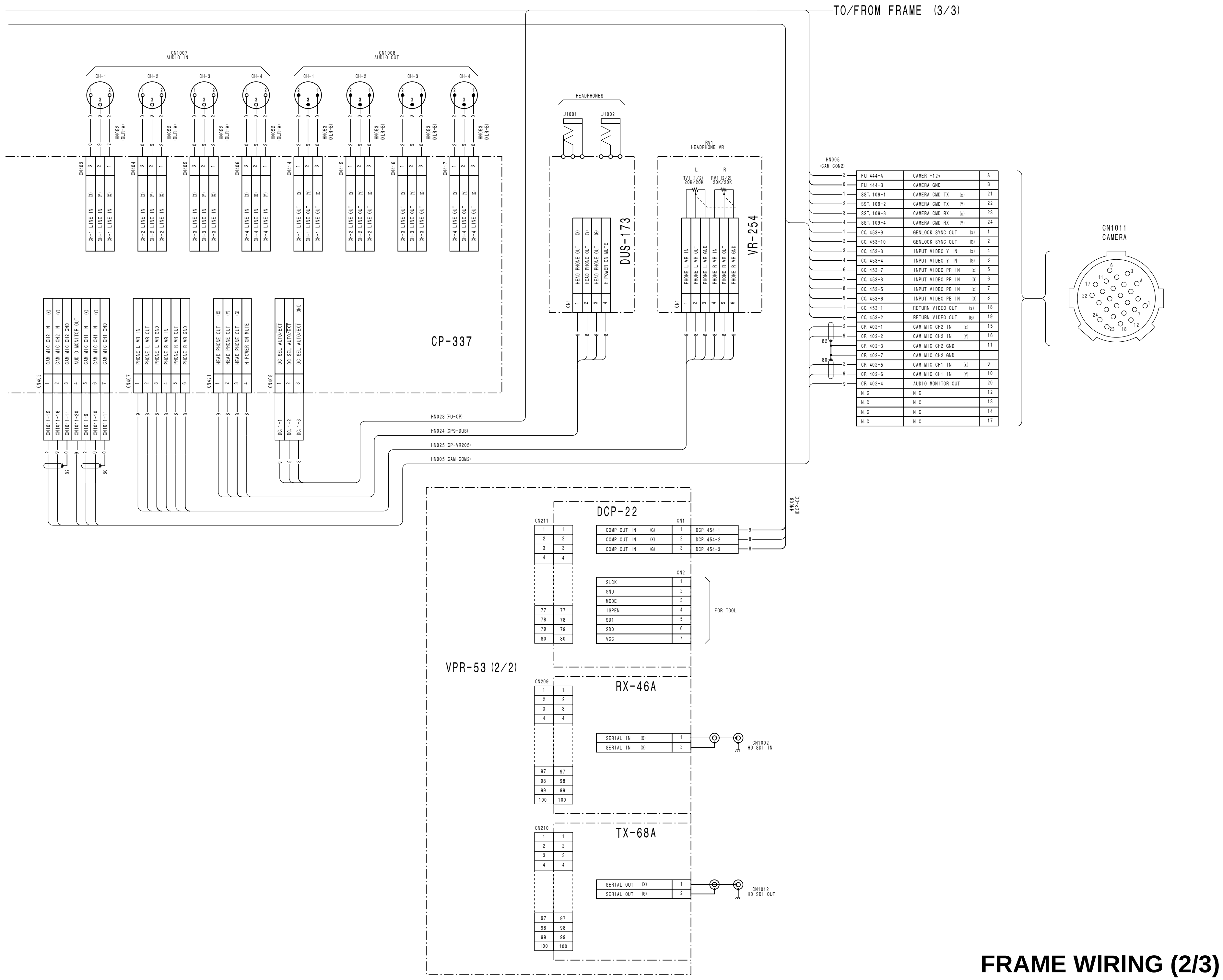
FRAME WIRING (1/3)

LOT NO. 812-

5-115


CC-82
ADA-44
VR-194
DPR-125
VPR-53 (1/2)
MB-825 (2/3)
VIDEO OUT
CN1001 REF IN
CN1014 Y
CN1009 PB
CN1004 PR
CN1015 COMPOSIT
FOR TOOL
HN009 (ADA-CP410)
HN010 (ADA-CP409)
HN011 (ADA-CP411)
VR-206
1-567-809-11
RV1001 AUDIO REC CH-1
RV1002 AUDIO REC CH-2
RV1003 AUDIO REC CH-3
RV1004 AUDIO REC CH-4
1
2
3
4
5
A
B
C
D
E
F
G
H

FRAME WIRING (2/3)

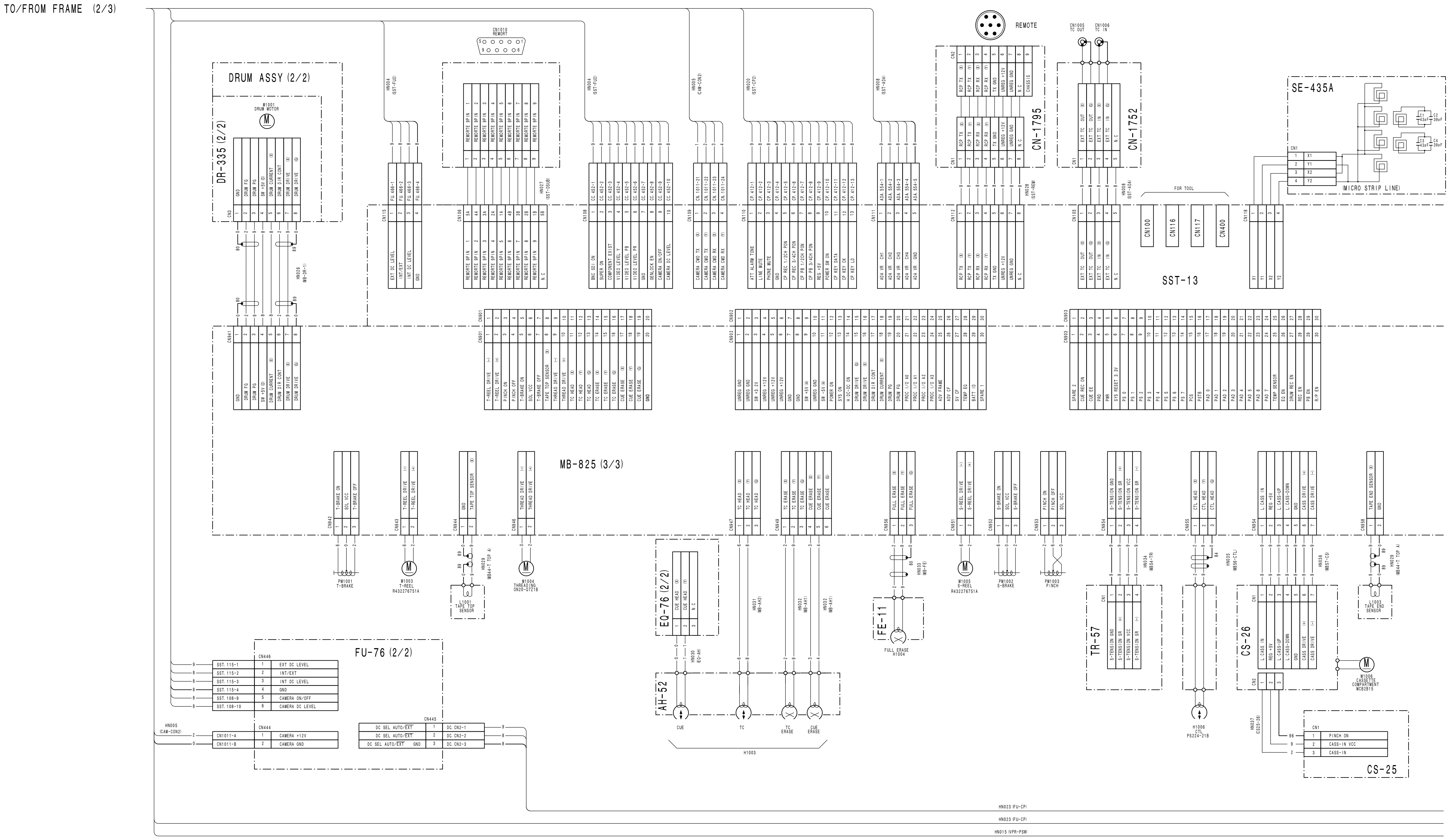

TO/FROM FRAME (3/3)
CN1007 AUDIO IN
CN1008 AUDIO OUT
CH-1
CH-2
CH-3
CH-4
HEADPHONES
J1001
J1002
RV1 HEADPHONE VR
DUS-173
VR-254
CP-337
HN005 (CAM-COM2)
CN1011 CAMERA
HN023 (FU-CP)
HN024 (CP9-DUS)
HN025 (CP-VR205)
HN005 (CAM-COM2)
HN006 (DCP-CD)
DCP-22
VPR-53 (2/2)
RX-46A
TX-68A
CN211
CN209
CN210
FOR TOOL
CN1002 HD SDI IN
CN1012 HD SDI OUT
SERIAL IN
SERIAL OUT
COMP OUT IN
SLCK
GND
MODE
ISPEN
SDI
SDO
VCC

FRAME WIRING (2/3)
LOT NO. 812-

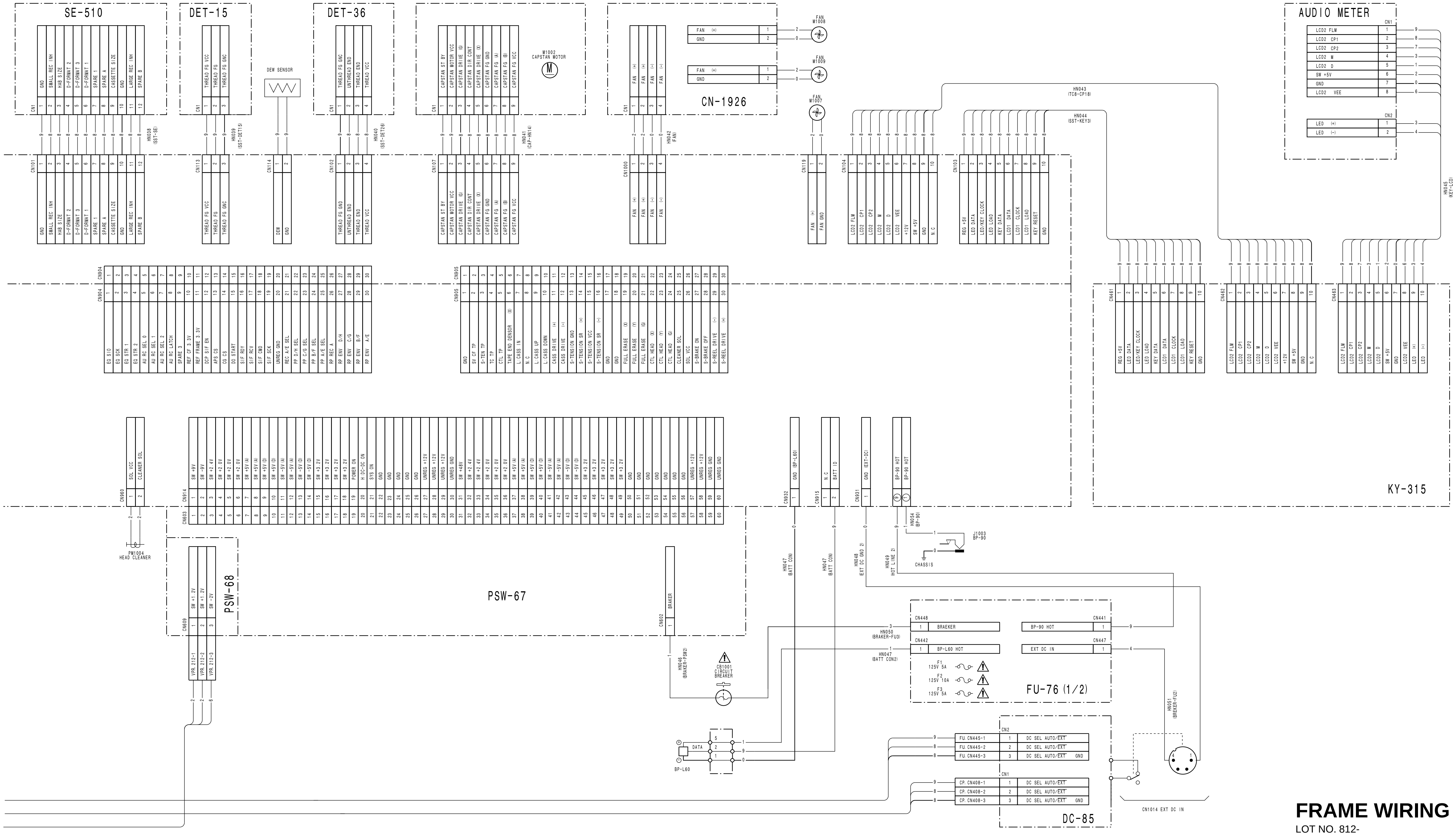
5-117

FRAME WIRING (3/3)

FRAME WIRING (3/3)


TO/FROM FRAME (2/3)
DRUM ASSY (2/2)
DR-335 (2/2)
M1001 DRUM MOTOR
CN1010 REMORT
REMOTE
CN1005 TC OUT
CN1006 TC IN
CN-1795
CN-1752
SE-435A
(MICRO STRIP LINE)
FOR TOOL
CN100
CN116
CN117
CN400
SST-13
MB-825 (3/3)
PM1001 T-BRAKE
M1003 T-REEL
M1004 THREADING
L1001 TAPE TOP SENSOR
EQ-76 (2/2)
AH-52
CUE
TC
TC ERASE
CUE ERASE
H1003
FE-11
FULL ERASE H1004
M1005 S-REEL
PM1002 S-BRAKE
PM1003 PINCH
TR-57
H1006 CTL
CS-26
M1006 CASSETTE COMPARTMENT
L1003 TAPE END SENSOR
CS-25
FU-76 (2/2)
HN023 (FU-CP)
HN015 (VPR-PSW)
1
2
3
4
5
A
B
C
D
E
F
G
H

FRAME WIRING (3/3)


SE-510
DET-15
DET-36
DEW SENSOR
M1002 CAPSTAN MOTOR
CN-1926
FAN M1008
FAN M1009
FAN M1007
AUDIO METER
HN038 (SST-SE)
HN039 (SST-DET15)
HN040 (SST-DET36)
HN041 (CAP-HN14)
HN042 FAN
HN043 (TC8-CP18)
HN044 (SST-KEY3)
HN045 (KEY-LCD)
CN101
CN113
CN114
CN102
CN107
CN1000
CN119
CN104
CN103
CN904
CN905
CN481
CN482
CN483
KY-315
PM1004 HEAD CLEANER
CN960
CN914
CN932
CN915
CN931
HN054 (BP-90)
J1003 BP-90
CHASSIS
CN603
PSW-68
PSW-67
CN609
CN602
BRAKER
HN047 (BATT CON)
HN048 (EXT DC GND 2)
HN049 (HOT LINE 2)
HN046 (BREAKER-PSW2)
CB1001 CIRCUIT BREAKER
HN050 (BRAKER-FU3)
HN047 (BATT CON2)
CN448
CN442
CN441
CN447
BRAEKER
BP-L60 HOT
BP-90 HOT
EXT DC IN
F1 125V 5A
F2 125V 10A
F3 125V 5A
FU-76 (1/2)
HN051 (BREAKER-FU2)
BP-L60
DATA
DC-85
CN2
CN1
FU CN445-1
FU CN445-2
FU CN445-3
CP CN408-1
CP CN408-2
CP CN408-3
DC SEL AUTO/EXT
CN1014 EXT DC IN

FRAME WIRING (3/3)

LOT NO. 812-

5-119

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